

COGAN / SHAPIRO

Consultants in
Planning • Public Affairs • Environmental Science
139 West 2nd Street, Juneau, Alaska 99801
(907) 586-9443

A COMPREHENSIVE PLAN AND COASTAL MANAGEMENT PROGRAM FOR THE CITY AND BOROUGH OF JUNEAU, ALASKA

VOLUME I - FINDINGS, POLICIES, AND IMPLEMENTATION

This document is a draft. It is proposed for adoption by the Borough Assembly as a policy document which will guide future actions by the City and Borough on land use decisions and related community development matters. Prior to adoption, it will undergo public hearings before the Planning Commission and Borough Assembly and be subject to revisions. Specific dates and times for hearings will be published in the Juneau Empire.

Prepared By
COGAN/SHAPIRO

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COGAN & ASSOCIATES
71 SW Oak Street
Portland, Oregon 97204
(503) 225-0192

SHAPIRO & ASSOCIATES, INC.
The Smith Tower, Suite 812
506 2nd Avenue, Seattle, Washington 98104
(206) 624-9190

PREFACE

The citizens of Juneau are nearly unanimous in supporting their community as a highly desirable place to live. The qualities cited most frequently are the beauty of the natural setting and surrounding wilderness, recreational opportunities, small population, and the friendliness of the people.

In order to protect and enhance Juneau's livability, most agree that it is important to safeguard the environment, promote orderly growth, provide affordable housing, and institute reasonable controls over land development and public services. The context in which these needs can be expressed and implemented is the comprehensive plan.

This document, which comprises the Comprehensive Plan and Coastal Management Program for the City and Borough of Juneau, provides a logical, consistent, and purposeful approach to managing community growth and development. Once adopted, the plan will be a roadmap which guides citizens and their public officials through appropriate courses of action, not only to identify areas suitable for specific types of development but also to assure more efficient utilization of those areas which already have been developed.

The plan provides a vision of Juneau's future which has many dimensions. For some, it is a means of reinforcing Juneau's importance as the state capital; to others an opportunity to create access to Juneau's waterfront, or to develop a variety of housing choices. To most, it is a means to preserve a high level of environmental quality.

In implementing the plan, care must be taken to protect natural amenities and develop carefully, or not at all, land which contains hazards or important natural resources. So that development on suitable land may occur according to a predictable and affordable schedule, community services and facilities must be extended into areas which are not presently served. New policies, ordinances, and procedures will provide the governing bodies a reasonable and workable means to implement the details of the plan.

Juneau has been the scene of conflicts between various philosophies and actions, some of which threaten the qualities most prized by most of its citizens. This comprehensive plan helps establish a level of confidence that the livability which many residents cherish will remain for generations to come.

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POLICIES AND IMPLEMENTATION

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I.

INTRODUCTION AND BACKGROUND

I. INTRODUCTION AND BACKGROUND

The purpose of this comprehensive plan and coastal management program is to provide the City and Borough of Juneau (CBJ) with a program for realizing its objectives for community development, land use, and related decisions, and regulating future growth in an orderly and coordinated manner.

Since its founding in 1880 during the Alaskan Gold Rush, Juneau has become a prosperous urban center with a 1982 population of nearly 21,000. In the past two decades, as a result of relatively rapid growth, the community has begun to experience problems similar to other American cities: urban sprawl, congestion, housing shortages, unordered provision of public facilities and services, and degradation of the natural environment.

In late 1981, the CBJ initiated a process to involve citizens, elected and appointed officials, and consultants in preparing a comprehensive plan and coastal management program. This document, Volume I, contains findings and appropriate policies and implementation measures. Volume II, Technical Appendix, contains the data upon which the latter were formulated. A third volume, the summary of the report, is intended for wide distribution, and presents the essential features of the plan accompanied by a full color map, illustrating the land use recommendations.

The recent decision by the voters of Alaska to retain the state capital marks a watershed event in Juneau's history and ends more than two decades of uncertainty. Through careful planning, the community can take full advantage of an opportunity for substantial growth and vitality to create a state capital environment of which all Alaskans may be proud.

SETTING

The City and Borough of Juneau is located in the central portion of the Alaskan panhandle, approximately 700 miles from Anchorage and 950 miles from Seattle (Figure I-1). Because of its mountainous terrain and great distances between other urbanized areas, Juneau is accessible only by sea and air. There are no roads to other southeastern Alaska communities or the Canadian interior.

Covering an area of more than 3,100 square miles, the CBJ is bounded on the west by Stephens Passage and Lynn Canal; on the east by the Canadian border; on the south by Point Cone; and on the north by the Haines Borough boundary (Figure I-2). Approximately 90% of the area consists of water or rugged mountains and glacial ice caps located within the boundaries of the Tongass National Forest. Most of this undevelopable portion of the CBJ has been excluded from the area studied in the comprehensive plan.

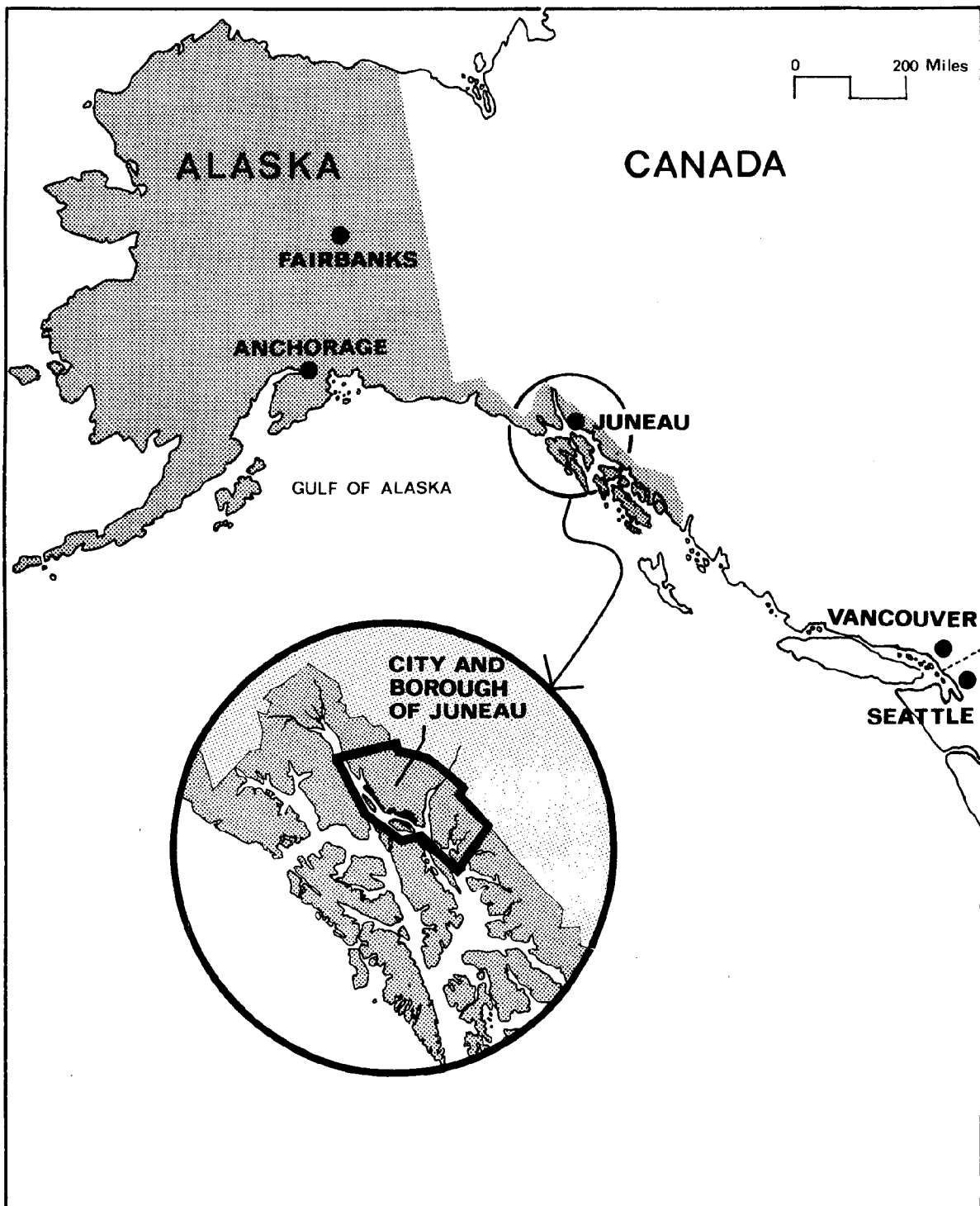
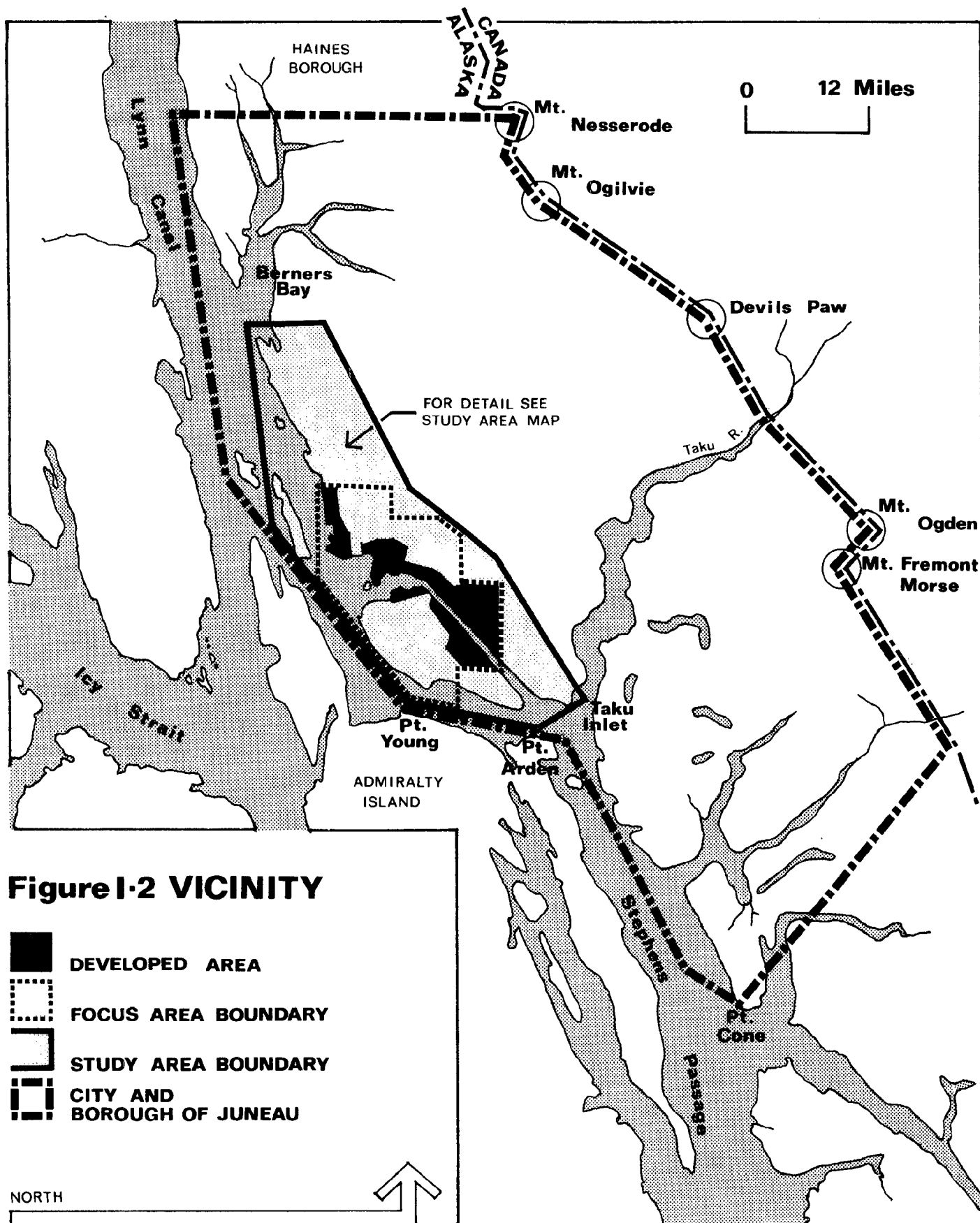


Figure I-1 REGIONAL SETTING

NORTH



As illustrated in Figure I-3, the study area has been further delineated by identifying a focus area, containing land most suitable for future development due to its proximity to existing urban uses, physical characteristics, and ownership patterns. The area includes the cities of Juneau and Douglas as well as more recent development in the areas of West Juneau, North Douglas, the Mendenhall Valley, Auke Bay, Tee Harbor, and Lemon, Switzer, and Salmon Creeks. Isolated development also is found at Amalga Harbor and Thane. Generally, existing development is linear, confined to a narrow bench of land between the Gastineau Channel and the steeply rising mountains to the east, and along the east and north coastline of Douglas Island. The major exception is the Mendenhall Valley, which is a broad, generally flat, glacial plain.

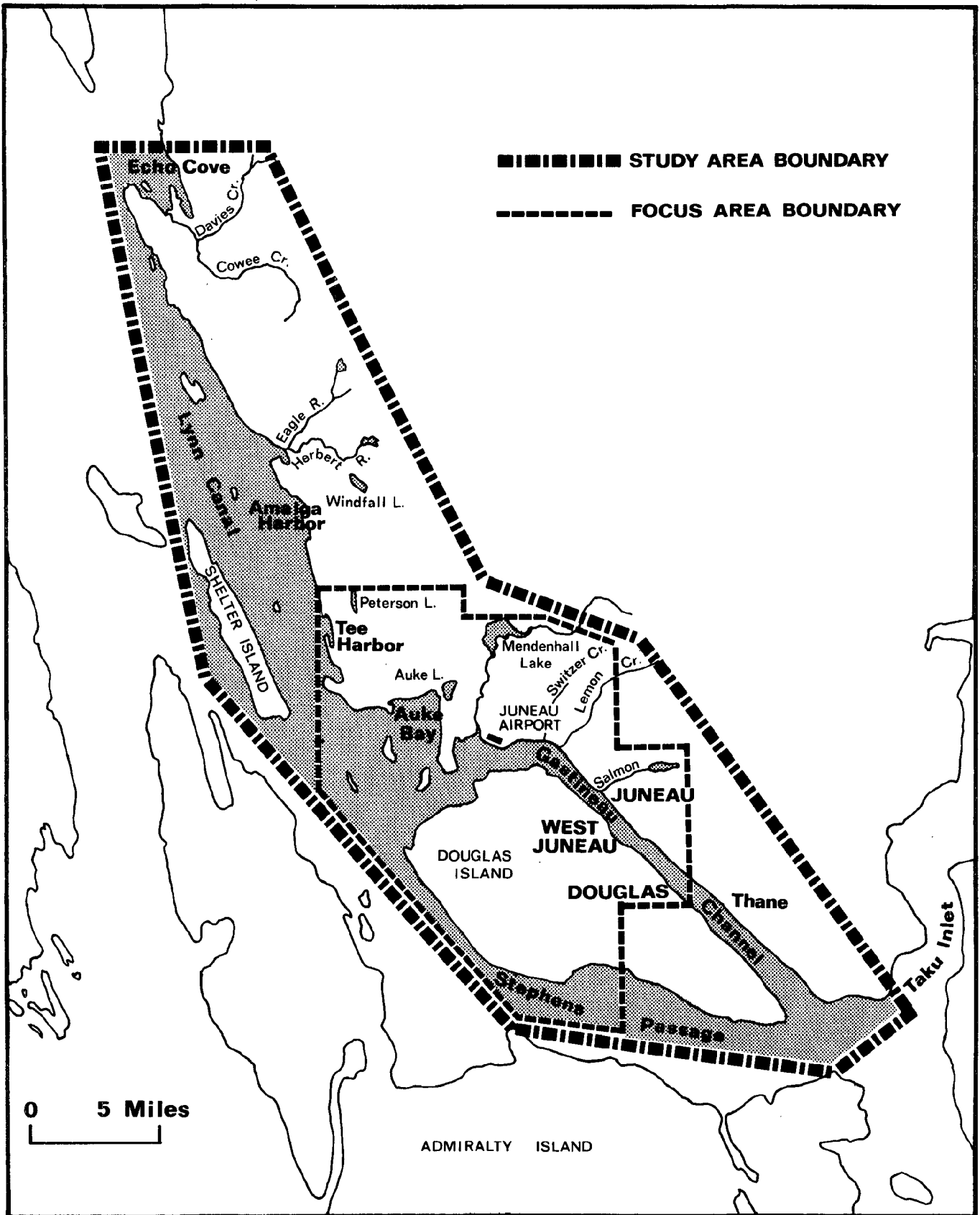
HISTORY

Juneau has developed into an important government, transportation, and tourist center as a result of its location and history. The general vicinity was first inhabited by the Tlingit Indians of the Auke and Taku tribes. Although nearby waterways were explored by the Spanish and the English in the late 18th century, the first European inhabitants were Russian fur traders. Alaska remained an outpost of the Russian Empire until its sale to the United States in 1867.

Other than a native settlement, there was no development until 1880 when gold was discovered in the Gold Creek basin by two prospectors, Dick Harris and Joe Juneau. Large scale mining activity soon was undertaken in Juneau and on Douglas Island; by 1893 the area had become the largest mining center in Alaska.

The territorial capital was moved from Sitka to Juneau in 1906. Steady growth continued until 1944 when, due to the wartime manpower shortage and increasing operational costs, the last of the large gold mines closed. By that time Juneau had sufficiently diversified its economy to sustain this loss of the mining industry.

Since Alaskan statehood in 1959, a growing tourist industry and the expansion of governmental activities have provided Juneau with sustained growth. For more than two decades, however, the state has considered relocating the state capital to a more central location, causing a high level of uncertainty about the community's future. A recent vote to retain the capital in Juneau assures the community a sound and growing economic base.



PLAN PREPARATION

Legal Requirements

Juneau's city and borough governments were incorporated into a unified home rule municipality in 1970. State statutes require such an entity to prepare a comprehensive plan, which is defined as "a compilation of policy statements, goals, standards, and maps for guiding the physical, social, and economic development... of the borough."* After it is adopted by the Borough Assembly, the document must be reviewed and revised as necessary every two years.

In addition, the CBJ must adhere to the provisions of the Alaska Coastal Management Act of 1977 which requires jurisdictions to develop a district management program for coastal areas to insure the protection, enhancement, and appropriate development of the state's coastal resources. Each district program is to establish policies, standards, and procedures governing public and private development activities, and coordinating the local, state, and federal agencies which have responsibilities for coastal areas. Most of the potentially developable land in the CBJ lies within the coastal area as defined by state statute.

The procedures and content for district coastal programs are prescribed in detail in the initial legislation and subsequent regulations. The Alaska Coastal Policy Council (ACPC), a state appointed commission of citizens and officials, is responsible for reviewing and approving district programs, and provides assistance to local jurisdictions to:

- Protect vital natural resources and sensitive fish and wildlife habitats from impacts of development;
- Establish a priority for water-dependent and water-related uses in shoreline areas, particularly those subject to intense development pressure.

As noted above, because most of the usable land in the CBJ planning area is within the state's definition of coastal, the comprehensive plan is designed to fulfill these requirements for a coastal management program. In addition to the general provisions of the plan, a separate coastal management section is included which specifies how the policies and implementing measures carry out state coastal management requirements.

* Alaska Statutes (AS) Section 29.33.085.

Planning Process

The process used in the formulation of this comprehensive plan is illustrated in Figure I-4 and summarized below:

1. Establish Public Information and Involvement Program

To insure that a wide range of community attitudes and interests were reflected in the planning process, and to develop understanding and support for the plan, a citizen involvement and information program, including community workshops, media coverage, and surveys, was undertaken. One of the most important aspects of this program was the establishment of an 18-member citizen advisory committee (CAC) with representatives from civic and neighborhood organizations, the business and development community, special interest groups, and the general public. The CAC advised the consultant during the planning process, reviewed all materials, identified important issues, and suggested general policies. The Planning Commission also was involved actively throughout the process.

2. Evaluate Existing Conditions

The purposes of this task were to:

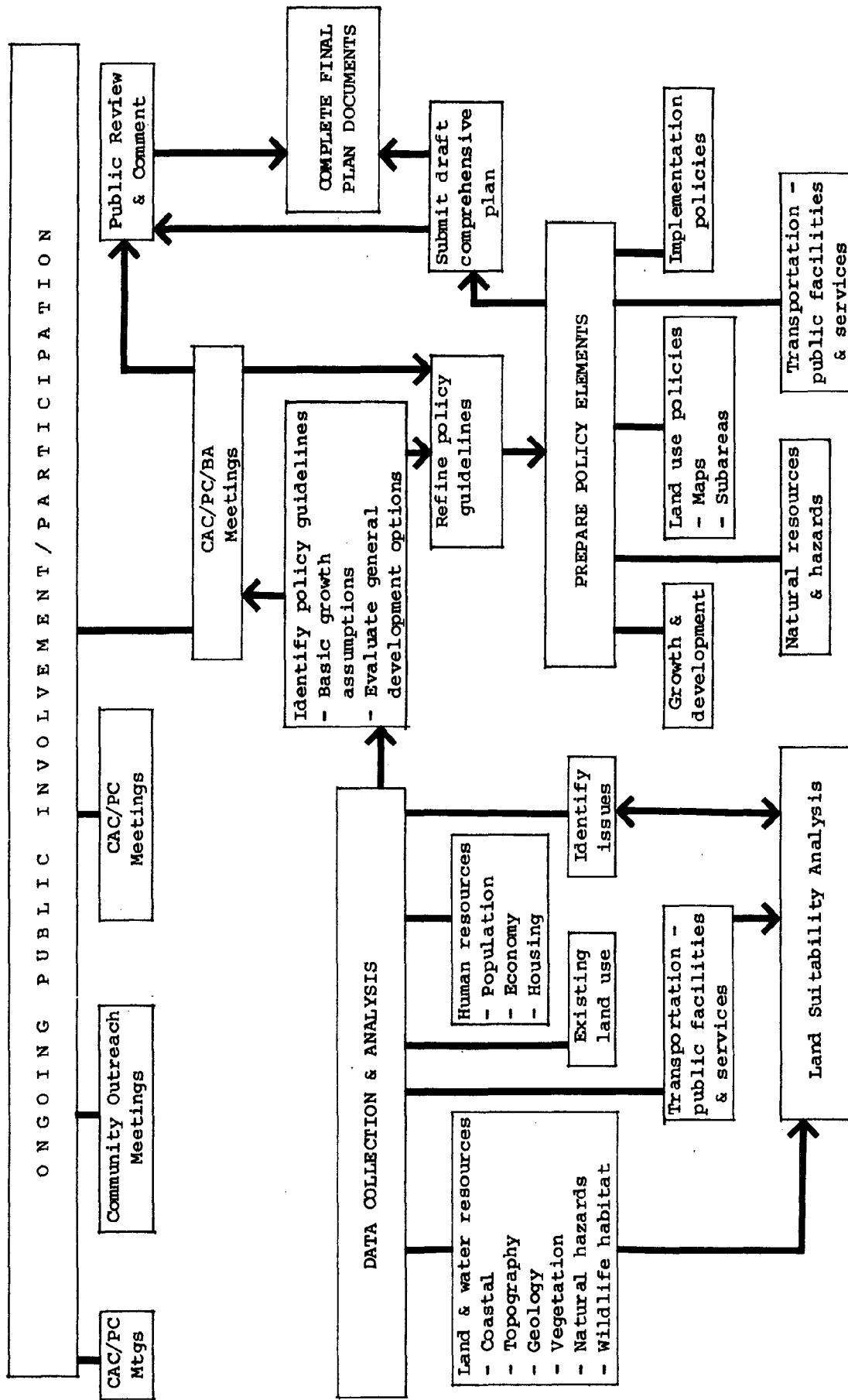
- Analyze data about human and natural resources, land use, public facilities, and other relevant factors and assess how they promote/inhibit future growth and development.
- Assess citizen attitudes and identify issues.
- Determine physical suitability for development of specific areas.

3. Develop Policy Guidelines

Based on the analyses of findings and issues, general policy guidelines were formulated for review by the CAC, Planning Commission, and Borough Assembly. They provided the direction for the preparation of the policy sections of this plan pertaining to growth management, natural resources, land use, and public facilities. Several development alternatives, which considered whether the majority of additional growth should be permitted in existing urban/suburban areas, rural areas, or new communities, were explored.

Figure I-4

GENERAL PROCESS - JUNEAU COMPREHENSIVE PLAN - 1982



LEGEND:

- CAC - Citizens Advisory Committee
- PC - Planning Commission
- BA - Borough Assembly

4. Formulate Policies and Draft Comprehensive Plan

The preceding activities provided the necessary direction to the development of policies concerning natural resources and hazards, housing, economic development, commercial/industrial land uses, coastal zone development, transportation, and public facilities and services. A land use map and supporting text were developed to support these policies and apply them to the land area of the City and Borough.

5. Outline Implementation Actions

Proposed measures to carry out all the policies in the plan were identified. The final phase of the plan preparation process is review, revision, and adoption of the proposed plan.

Format

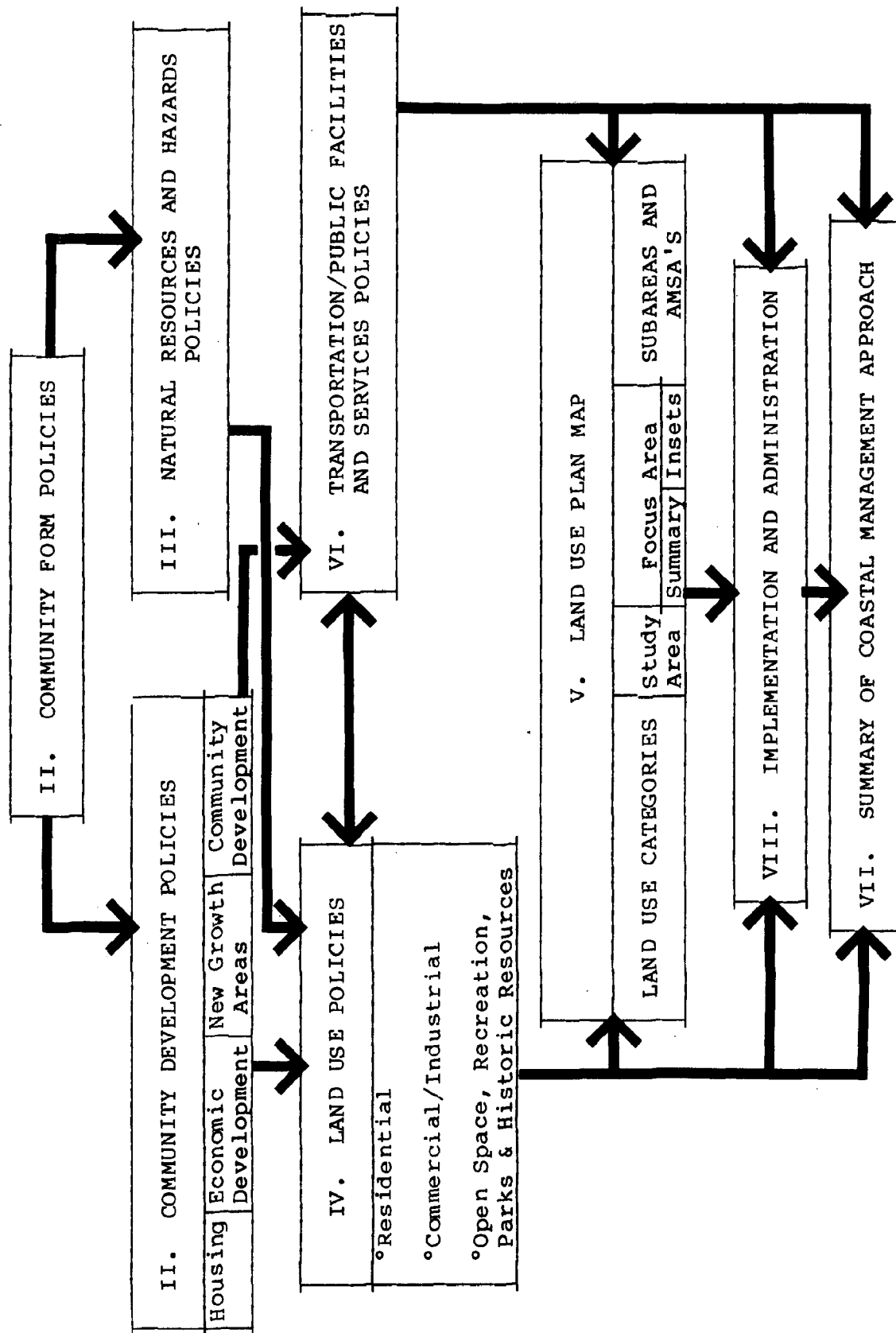
With regard to the general format of this plan, (See Figure I-5), Section II, Growth and Development, establishes the basic policies governing the general nature and location of new growth. Policies in Section III, Natural Resources and Hazards, identify the areas of the CBJ in which future development is inappropriate. These policies guide more specific growth and development decisions in Section IV, Land Use; and Section VI, Transportation/Public Facilities and Services; and are applied in Section V, Land Use Plan Map. A summary of all policies which affect coastal management is presented in Section VII; so that the comprehensive plan also can serve as the state-mandated coastal management program. Finally, policies for the general implementation and administration of the plan are presented in Section VIII. A glossary of terms is presented in Section IX.

Each policy section of the Juneau comprehensive plan contains four basic components:

- Introduction. Explains the purpose of the policy section and its relation to other parts of the plan.
- Summary of Findings. Results of research which assess existing physical, social, and economic conditions and identify the community's future development needs. Key issues, assumptions, and projections are included where appropriate.
- Policies. Statements establishing a course of action for the CBJ which provide the basis for guiding ongoing decisions related to land use and preparation of new land use regulations.
- Implementing Actions. The practical means of putting each policy into effect, including ordinances, maps, programs, and financing mechanisms.

Figure I-5

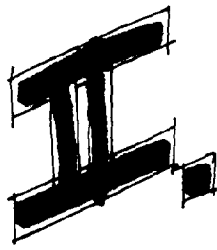
RELATIONSHIP OF POLICY ELEMENTS
JUNEAU COMPREHENSIVE PLAN AND COASTAL MANAGEMENT PROGRAM



The maps accompanying the plan illustrate the recommended land use patterns and supporting transportation and public facility requirements. Using these as a basis, the CBJ will need to develop a zoning map and development ordinances to govern site-specific uses.

FUTURE DIRECTION

This comprehensive plan provides guidance to citizens of Juneau and local officials as they decide the location, intensity, and timing of future public and private development. The community's growth is affected by complex physical, economic, and social factors. For example, the size and location of a new housing development is influenced not only by community needs but also by the availability of basic services; roadway capacities; access to shopping, employment, and recreational facilities; and the presence of natural hazards. In the comprehensive plan, the interrelationships of these factors -- housing, economic development, transportation, public services and facilities, and natural resources and hazards -- are considered.



GROWTH AND DEVELOPMENT

- Community Form
- New Growth Areas
- Housing
- Economic Development
- Community Development

II. GROWTH AND DEVELOPMENT

Policies relating to the CBJ's future land use patterns in terms of physical form, housing, economic development, and community development are critical to its future growth and provide direction to all other parts of the plan. Specific policies and implementation measures in sections related to natural resources, land use, and public facilities follow.

COMMUNITY FORM

To accommodate an anticipated 50% increase in population by the late 1990s, the CBJ will need to promote and support the construction of an additional 4,200 housing units; creation of nearly 7,000 jobs, and provision of a wide range of goods, services, and facilities. The most appropriate development pattern assures that sufficient acreage, suitably located, is available for these uses, and also:

- Provides sufficient development opportunities to meet a broad range of residents' needs and lifestyles;
- Facilitates the efficient and economical provision of urban level services including community sewer, water, and storm drainage; police and fire protection; schools, libraries, and recreational facilities; and social and medical services;
- Protects the region's scenic and environmental assets and economically valuable natural resources.

By clearly distinguishing those areas which are most suitable for future urban development, the CBJ will determine the community's ultimate physical form.

SUMMARY OF FINDINGS

- Due to topography and private/public ownership patterns, the developed or urban portion of the CBJ is linear, with major concentrations in old Juneau, the Mendenhall Valley, Lemon Creek, and Auke Bay on the mainland, and Douglas and West Juneau on Douglas Island. Smaller enclaves are found at Thane, Lena Cove, and Tee Harbor.
- The total developed area of nearly 4,000 acres constitutes 2% of the more than 188,200 acres in the region under study. Approximately 90% of the CBJ's nearly 21,000 residents live in urban areas, that is, those characterized by a high level of public services and facilities; the remaining 10% live in rural areas.

- For the purposes of this comprehensive plan, the 15 years between 1982 and 1997 has been chosen as the planning period. This allows for reasonable projections of population, housing, and employment.
- Juneau's population is projected to grow by 10,500 to a total of 31,400 people by the year 1997. This represents an increase of 50% over 1982 and will add approximately 4,235 new housing units.
- In several community-wide surveys, CBJ residents indicate a desire to preserve open space and natural resources, particularly those with significant environmental and recreational values. At the same time, development of timber, mining, and fisheries resources is identified as a means to diversify the local economy.
- Local and state governments recognize the importance of coastal resources to the environmental quality and economic vitality of the CBJ. To insure their preservation and appropriate development, the state requires each local jurisdiction to complete a district coastal management plan. Nearly all the developable land in the CBJ is within the area defined as the coastal zone by the state statutes. Environmentally sensitive habitats and waterfront areas which are particularly subject to intense development pressures, such as in downtown Juneau, Auke Bay, north Douglas Island, and Echo Cove, merit special attention.
- Although the hazards associated with landslides, avalanches, flooding, and earthquakes pose a significant threat to life and property, the CBJ has neither identified nor regulated development in areas subject to these hazards.
- Development potential of some areas of the CBJ is limited because soils are unsuitable for septic systems and/or conventional building foundations.
- Private and public land ownership patterns within the CBJ have a significant impact on the location of future urban development. These patterns are summarized in Table II-1.

Table II-1

OWNERSHIP PATTERNS IN STUDY AREA

<u>Ownership</u>	<u>Acreage*</u>	<u>Percent</u>
Federal		
° National Forest	120,700	64%
° Bureau of Land Management	19,400	10
State	8,800	5
CBJ	20,300	11
Private		
° Goldbelt	3,900	2
° Other	<u>15,100</u>	<u>8</u>
TOTAL	188,200	100%

* Rounded to nearest 100 acres.

Source: Cogan/Shapiro

- The CBJ and Goldbelt, the Juneau urban ANCSA corporation under the Alaska Native Claims Settlement Act, are the largest owners of developable property in the CBJ, having acquired sizeable areas of state and federal lands under the provisions of the Alaska Statehood and Alaska Native Claims Settlement Acts. The CBJ is drafting regulations regarding the management/disposition of these lands, which have been selected because of their potential residential, commercial, recreational, and resource value.
- There is more suitable vacant land within the CBJ study, although much of this land lacks needed public services.

ALLOCATION OF FUTURE GROWTH

The CBJ's future community form depends upon the amount of land required to meet projected demand for residential, commercial, and industrial uses, and the most appropriate allocation of land for these purposes.

To facilitate an understanding of the allocation process used in this plan, several key concepts are defined below:

Development Areas. This plan divides all CBJ land into the following development categories:

Urban Service Area (USA). Site of existing urban development plus adjacent vacant land needed and appropriate for future urbanization, based on proximity to sewer, water, and other public facilities, ownership, and physical suitability.

Rural Area. All land outside the urban service area which contains natural resources in need of protection from development, or areas unsuitable or not needed for more intense urban development. Urban services are not to be planned for or extended to these areas except when they must be provided to serve a new growth area as defined below.

New Growth Area. Sites in rural areas suitable and available for future urban/suburban development when specially approved by the CBJ in accord with the procedures and criteria of Policy 6, New Growth Areas. Non-residential uses such as port facilities or resource-related industrial development, e.g. a lumber mill or fish processing plant, may be appropriate in some new growth areas.

Types of Development:

Urban/Suburban. Residential, commercial, industrial, and/or public development in the urban service and new growth areas which requires and supports a full complement of public services and facilities. A minimum residential density of four dwelling units (DU) per acre is the most economically feasible to support community sewer and water. Under special circumstances dictated by ownership patterns, previous development commitments, or other factors, residential densities as low as one unit/acre may be permitted.

Rural. Natural resource management and conservation activities and extremely low density residential uses characterized by few public services, no public water and sewer, and limited police and fire protection. Rural residential development is intended to occur at a density no greater than one dwelling unit/two acres; in special circumstances, densities as low as one unit/five acres may be required. In areas encompassing sensitive wildlife habitats and other natural resources, a minimum lot size of 20 to 40 acres may be appropriate.

The amount and general location of land needed by 1997 to accommodate projected residential, commercial, and industrial uses is summarized in Table II-2. For a detailed description of methodology and analysis, see Section IV in this plan, and Section VIII, page VIII-23, in the Technical Appendix.

This allocation of land is based on the following assumptions:

- Compact growth is a preferable development pattern due to the following:
 - ° Permits efficient use of land and facilitates the economic and efficient provision of urban level services;
 - ° Minimizes adverse environmental impacts by concentrating urban activities in a relatively small area;
 - ° Serves the needs of the majority of people who live in urban areas who both prefer a high level of public services and facilities, and value proximity to commercial, employment, educational, cultural, and recreational opportunities.
- To assure substantial market choice and avoid an artificially constrained land supply and inflating land prices, future residential land requirements have been calculated on the basis of population growth plus an over-allocation factor of 150%. A similar over-allocation factor of 50% has been applied to projected requirements for commercial land.
- Most commercial and industrial land is located within the urban service area to insure the provision of the required high level of public services and facilities and to prevent intrusion into environmentally sensitive and/or resource-rich rural areas. Some commercial and industrial development also has been allocated to new growth areas.
- Based on existing development patterns, it is assumed that 10% of anticipated residential growth will occur in rural areas. The remaining 90% needs to be accommodated in the urban service or new growth areas (Table II-3).
- Due to lack of a basis for quantitative projection of industrial land needs, an assumption was made that the plan should assure availability of sufficient vacant land to equal the amount of developed industrial land in 1982 (190 acres).

Table II-2

SUMMARY OF PROJECTED LAND REQUIREMENTS FOR GROWTH (1982-1997)
AND ASSUMED ALLOCATION TO DEVELOPMENT AREAS^a

Land Use	Development Areas								Total
	Urban Service Area		New Growth Areas		Rural Areas		Residential Units	Acres	
	Residential Units	Acres	Residential Units	Acres	Residential Units	Acres			
Residential ^b	3,124	1,402	686	343	425	1,275	4,235	3,020	
Commercial ^c	-	106	-	10	-	-	-	116	
Industrial ^d	-	140	-	50	-	-	-	190	
TOTAL	3,124	1,648	686	403	425	1,275	4,235	3,326	

^a See Section IV of this plan, and Section VIII in Technical Appendix for detailed methodology and assumptions regarding development of projected land use requirements.

^b Acreage projections include over-allocation factor of 150% to allow for market flexibility. See Tables IV-2 and IV-3 for detailed assumptions regarding residential densities in urban service and new growth areas.

^c Acreage projections include over-allocation figure of 50% to allow for market flexibility.

^d Based on assumption that plan should assure availability of an amount of vacant land, equal to 1982 industrial land use.

Table II-3

ALLOCATION OF PROJECTED RESIDENTIAL UNITS
BY DEVELOPMENT AREA

	<u># Dwelling Units</u>	<u>Percent</u>
Urban	3,810	90%
Urban Service Area	3,124	74%
New Growth Areas	686	16%
Rural	<u>425</u>	<u>10%</u>
Total	4,235	100%

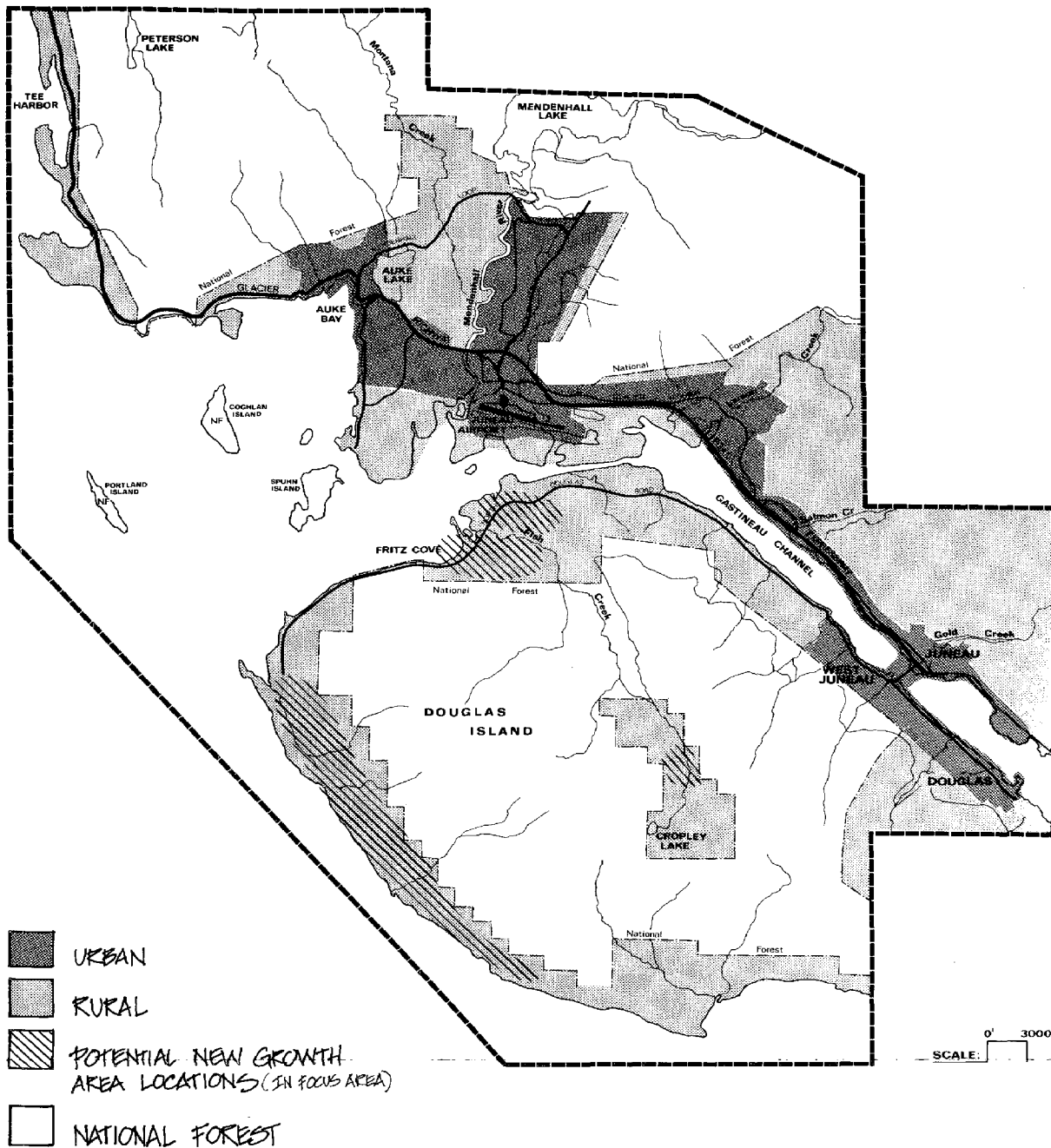
Figure II-1, a community form map delineating the urban service and rural areas and potential areas for new growth, is based on these projections. This provides the framework for determining specific future land uses throughout the CBJ, as detailed in Section II, New Growth Areas; Section IV, Land Use; and Section V, Land Use Plan Map. In delineating these areas, the following factors were considered:

- Residents' needs and lifestyles;
- Ownership patterns;
- Proximity to employment and commercial centers, transportation corridors, and other public services and facilities;
- Physical suitability, that is, absence of unstable soils, slopes, and other potentially hazardous conditions;
- Presence of sensitive habitat and/or valuable natural resources which must be protected.
- Amount needed for projected development.

Sufficient, suitable vacant acreage is provided in the urban and new growth development areas to accommodate projected demand for residential, commercial, and industrial uses. The remaining land within these areas is suitable for public use or is undevelopable due to ownership patterns and/or physical unsuitability. More land is designated for residential development in the rural area than is needed to serve the projected 10% future growth, and thus more new rural development could be accommodated.

FOCUS AREA

Figure II-1 COMMUNITY FORM



COMPREHENSIVE PLAN FOR THE CITY & BOROUGH OF JUNEAU, ALASKA

COGAN/SHAPIRO Consultants in Planning • Public Affairs • Environmental Science Juneau, Portland, Seattle

The purpose of the allocation process is to establish a reasonable balance between urban and rural development and insure that adequate land is available to meet anticipated demand. Through the comprehensive plan, development ordinances, the capital improvements program (CIP), and development activities, the CBJ will influence strongly the nature, location, intensity, and timing of development. Nevertheless, many important decisions will be made by private landowners/developers in response to prevailing market conditions and their perceived needs.

The following specific policies relate to all these factors, and provide the rationale for the formulation and implementation of this comprehensive plan.

POLICY 1: ADEQUATE DEVELOPMENT OPPORTUNITIES

One of the primary responsibilities of the CBJ is to facilitate future growth by insuring that adequate land is available when needed and providing a level of public services and facilities sufficient to promote public health, safety, and convenience.

1 IT IS THE POLICY OF THE CBJ TO ASSURE AVAILABILITY OF SUFFICIENT LAND, SUITABLY LOCATED AND PROVIDED WITH THE APPROPRIATE PUBLIC SERVICES AND FACILITIES, TO MEET THE COMMUNITY'S FUTURE GROWTH NEEDS. TO ACCOMMODATE THE VARIOUS NEEDS AND LIFESTYLES OF JUNEAU'S RESIDENTS, A RANGE OF DEVELOPMENT OPPORTUNITIES IN URBAN AND RURAL AREAS WILL BE PROVIDED.

IMPLEMENTING ACTIONS

- Estimate and plan for the CBJ's anticipated growth for 15 years between 1982 and 1997.
- Designate sufficient land on the land use plan map (Section V) to serve projected growth needs for residential, commercial/industrial, and other land uses; include land over-allocation factors of 150% for projected residential needs and 50% for commercial needs to assure land market choice and flexibility.
- As part of the plan implementation and updating process (Section VIII), monitor land availability and cost for various land uses, and reevaluate the designations on the land use plan map.
- Develop capital improvement plans and budgets for public facilities and services which are needed to support the land use pattern determined in this comprehensive plan (Section VI, Transportation/Public Facilities and Services; other community form policies below).

POLICY 2: URBAN DEVELOPMENT PATTERNS

Based on extensive studies of the experience of other American cities, compact urban development is preferable to urban sprawl. By concentrating development, the CBJ will limit the number of acres dedicated to urban uses and minimize the per unit costs of extending sewer, water, and utility lines and roadways. Significant reductions in travel, energy consumption, and pollution will result by encouraging the development of residential uses in relative proximity to shopping, employment, cultural, and recreational facilities.

2 IT IS THE POLICY OF THE CBJ TO PROMOTE COMPACT URBAN DEVELOPMENT WITHIN AND ADJACENT TO EXISTING URBAN AREAS TO INSURE EFFICIENT UTILIZATION OF LAND RESOURCES AND FACILITATE ECONOMIC PROVISION OF URBAN FACILITIES AND SERVICES.

IMPLEMENTING ACTIONS:

- Delineate an urban service area which contains sufficient land in accord with Policy 1 - ADEQUATE DEVELOPMENT OPPORTUNITIES, and its implementing actions.
- Adopt an urban service boundary which defines the limits within which the full range of urban services, such as water and sewer, will be provided by the CBJ. Except for fulfilling existing commitments or serving new growth areas, do not provide such services elsewhere.
- Adopt the community form map (Figure II-2) as the framework for future urban development. Refer to Sections IV, Land Use, and V, Land Use Plan Map, for the specific location of uses within the urban service and rural areas as well as potential new growth areas.
- Adopt a capital improvements program (CIP) which schedules community sewer, water, storm drainage and transportation improvements for all areas within the urban service boundary and new growth areas over a period of 15 years.
- Establish specific policies and land use plan map designations for the full range of needed urban land uses and activities; see sections IV, V, and VI.

POLICY 3: RURAL AREA DEVELOPMENT

A majority of the land and water within the CBJ is outside existing or planned urban development areas; in this plan, this is defined as the rural area. It is suitable for a broad range of activities -- rural residential development, timber harvest, mining and sand/gravel extraction, scenic resources, fish and wildlife habitat, and many forms of outdoor recreational activities.

3 IT IS THE POLICY OF THE CBJ TO PERMIT APPROPRIATE AND NEEDED DEVELOPMENT IN RURAL AREAS WHILE ASSURING PROTECTION OF NATURAL RESOURCES AND RECREATIONAL OPPORTUNITIES.

IMPLEMENTING ACTIONS:

- Coordinate all planning and development decisions in the rural area with state and federal agencies with appropriate jurisdiction; see Policy 54: INTERGOVERNMENTAL COORDINATION, Pg. VIII-7.
- Establish specific definitions and policies for land use in rural areas (Sections IV and V). Land use categories will include:
 - ° Rural residential
 - ° Rural conservation
 - ° Recreation/resource
- Designate as public open space those publicly owned rural lands of high recreational value or significant potential natural hazards, consistent with the open space land use policies in Section IV.
- Permit development of new growth areas in the rural area in accord with the implementing actions of Policy 6, New Growth Areas.

POLICY 4: ENVIRONMENTAL PROTECTION

The City and Borough of Juneau is located in one of the world's most beautiful natural settings. Throughout this comprehensive planning process, citizens have indicated repeatedly their desire to protect the scenic beauty and environmental values of the region as well as promote the careful development of valuable timber, mineral, and fishing resources. Through a plan which

emphasizes compact development, the CBJ can mitigate the adverse environmental impacts of urban development by minimizing the number of acres converted to urban uses and providing community sewer and water systems sufficient to protect the public health and lessen possible damage to the region's groundwater and wildlife resources.

4 IT IS THE POLICY OF THE CBJ TO PROTECT THE REGION'S SCENIC, ENVIRONMENTAL, AND ECONOMICALLY VALUABLE NATURAL RESOURCES FROM THE ADVERSE IMPACTS OF URBAN DEVELOPMENT. DEVELOPMENT SHALL BE CONTROLLED CAREFULLY, AND, IF NECESSARY, PROHIBITED IN NATURALLY HAZARDOUS AREAS.

IMPLEMENTING ACTIONS:

- Designate on the land use plan map as sensitive areas, those containing valuable natural resources and/or natural hazards. Manage development to minimize the adverse impacts of urban use. Refer to Section III, Natural Resources and Hazards, for detailed policies and actions.

POLICY 5: COASTAL AREA PLANNING

Nearly all the developable land in the CBJ is within the coastal zone defined by Alaska law. These statutes require that district coastal management programs carefully manage the development of shoreline areas and place highest priority on reserving waterfront areas for water-dependent and-related uses. The obvious overlap between a local comprehensive plan for the CBJ and a coastal management program necessitates integrating the two approaches.

5 IT IS THE POLICY OF THE CBJ TO INCORPORATE ITS DISTRICT COASTAL MANAGEMENT PROGRAM WITH ITS COMPREHENSIVE PLAN, AND IN PLANNING FOR SHORELINE DEVELOPMENT, TO PLACE HIGHEST PRIORITY ON WATER-DEPENDENT AND WATER-RELATED USES.

IMPLEMENTING ACTIONS:

- Assure that all requirements of the state coastal zone management program are addressed within the comprehensive plan and its implementing ordinances and regulations.
- Summarize all state coastal zone management requirements and the manner in which each is addressed, in one section of the comprehensive plan (Section VII).

- Designate areas for water-dependent and related uses on the land use plan map (Section V); protect other shoreline areas from conflicting development by designating them for open space and recreational use.

NEW GROWTH AREAS

This section presents the specific policy and implementation actions for the development of new growth areas. This concept responds to the need for limited urban level development opportunities outside the urban service area, especially for selected lands of the CBJ, Goldbelt, and the state. Five of the most likely sites for new growth, at Echo Cove and on west, south, and north* Douglas Island, are illustrated conceptually on the land use plan map (Section V) and the community form map (Figure II-1). The exact location, size, nature, timing, and public/private involvement in the development of these areas will be determined in the future.

SUMMARY OF FINDINGS

- Of the four growth patterns evaluated by the Citizens Advisory Committee (CAC), development of new growth areas as satellite communities was identified as the most desirable way to accommodate growth outside the urban area. As planned developments they can provide residents the advantages of urban living in a rural setting while minimizing incursion into environmentally sensitive areas.
- Under the provisions of the Alaska Statehood Act, the CBJ recently acquired nearly 20,000 acres of state lands; they were selected on the basis of their potential residential, economic, and recreational value. Much of this property located in non-urbanized portions of the CBJ, is being evaluated to determine the most desirable uses.
- As a beneficiary of the Alaska Native Claims Settlement Act, Goldbelt, the local ANCSA corporation, received title to nearly 4,000 acres of property at Echo Cove and on west and south Douglas Island. These tracts are potentially suitable for development as large scale residential and/or resort communities.

POLICY 6: NEW GROWTH AREAS

As noted above, the development of carefully sited, well designed new growth areas is an innovative means by which Juneau residents can have the advantages of rural living and urban amenities. Although the actual nature and timing of development will be governed by future public policy and private market factors, the areas can be expected to have the following characteristics:

* Two potential sites, on either side of Fish Creek, have been identified on north Douglas.

- Location. The most suitable areas for new growth:

- ° Are physically capable of supporting urban level development;
- ° Have potentially good land and/or water access;
- ° Are under unified ownership.

The latter is an important consideration, as unified ownership greatly reduces the time and cost of assembling large parcels of land. All five potential sites designated for new growth on the land use plan map meet these criteria.

- Uses. These areas probably will be new residential communities supported by an appropriate level of recreational, public (e.g., school), and neighborhood commercial activities. However, Echo Cove and the sites on either side of Fish Creek on north Douglas Island may be suitable for other uses. Echo Cove has been mentioned as a potential site for a destination resort with associated recreational facilities to serve tourists and the local population. It also could serve the northern portion of the CBJ as a staging area for resource-related industries such as fishing, mining, and timber harvesting. Similarly, north Douglas is considered suitable for private barge docks and a new small boat marina, in addition to residential development.

- Size. A minimum of approximately 300 residential units will be necessary to create a viable community and support the efficient provision of roads and utilities such as community-level water, sewer, and drainage systems. Assuming a minimum urban/suburban density of four dwelling units/acre, as much as 75 acres are required for residential development. Adding another 75 acres to accommodate open space, future expansion, infrastructure -- roads and utilities -- and recreational, public, and commercial uses, residential new growth areas should be a minimum of 150 acres. Potential mixed-use development at Echo Cove and on north Douglas Island may have similar or larger acreage requirements, although the proportion of residential development could be substantially smaller.

- Design. Each new growth area should develop according to a unified, comprehensive plan which insures:

- ° Utilization of aesthetically-pleasing and energy-efficient siting, design, and construction techniques;
- ° Efficient provision of infrastructure;

- ° Preservation of vegetation, views, and other natural amenities;
 - ° Provision of passive and active recreational activities, including water access, open space, community recreational facilities, and pedestrian and bicycle paths;
 - ° Elimination of land use conflicts. This is particularly important in developments which combine residential and non-residential uses.
- Development Role. With the assistance of the Planning Commission, senior city staff, and citizens, the Borough Assembly must establish the CBJ's development role, particularly with regard to the disposition of selected lands. Various options include:
- ° Act as a sole developer;
 - ° Engage in a joint venture with one or more private developers;
 - ° Support private development by assisting in land assembly, financing and constructing public facilities, on and off-site design and engineering, and/or expediting the permit process. Disposition of these lands would be governed by the provisions of this plan.

Depending on the nature and extent of public involvement, the CBJ also must determine the most appropriate institutional framework within which to carry out its developmental activities. For example, responsibility could be assumed by the Planning Department or by a development officer, whose role would be similar to the CBJ finance officer or planning director. Other alternatives include formation of an independent development commission or nonprofit development corporation. This plan recommends that the Planning Department be assigned this responsibility. See Policy 15: PLANNING AND DEVELOPMENT RESPONSIBILITIES, Page II-32.

POLICY 6: NEW GROWTH AREAS

6

IT IS THE POLICY OF THE CBJ TO ENCOURAGE AND FACILITATE THE DEVELOPMENT OF NEW GROWTH AREAS IN SUITABLE LOCATIONS IN THE RURAL AREA OF THE CBJ.

IMPLEMENTING ACTIONS:

- Develop mechanisms for regulating the development of new growth areas, most likely by expanding current planned development (PD) regulations to accommodate large scale development.
 - ° Revise definition of residential PD to include supporting recreational, public, and neighborhood commercial uses; define the nature and proportion of uses in mixed use developments.
 - ° Establish minimum quantitative open space, recreational, and landscaping requirements.
 - ° Provide minimum standards for roadways and bicycle and pedestrian paths.
 - ° Grant density bonuses, that is, more housing units per acre than normally permitted in the underlying zone(s), as an incentive to encourage:
 - Innovative design, siting, and construction;
 - Preservation of vegetation, views, and other natural amenities;
 - Variety of housing types;
 - Allocation of up to 25% of residential units to low and moderate income households.
 - ° Require developers, including the CBJ, to demonstrate economic feasibility and market demand for the proposed development, if public lands and/or investments are involved.
 - ° Institute phasing schedule which allows construction in reasonable increments within an overall design concept.
 - ° Require developers to post bond to assure the project is completed within specified timetable and in substantial compliance with the approved development plan.
- Determine the CBJ's role in the marketing and/or development of new growth areas, particularly those located on publicly owned lands, with the assistance of the Planning Commission, senior staff, and citizens. The most efficient institutional mechanism for managing its development activities depends on the nature and extent of its involvement. Options include

expanded planning department, development officer, independent development commission, and nonprofit development corporation.

- Evaluate, by the planning director or other development official, the feasibility of developing each of the five sites and any additional potential sites for new growth, based on the following criteria:
 - ° Physical amenities, including views, vegetation, topography, water access, etc;
 - ° Physical suitability, including soils, slopes, climate, prevailing winds, etc.;
 - ° Potential natural resource conflicts, including sensitive wildlife habitats, groundwater supplies, and commercially valuable mineral and timber resources;
 - ° Size/configuration;
 - ° Ownership patterns;
 - ° Proximity to commercial and employment centers;
 - ° Costs of extending roads and utilities and providing community water, sewer, and storm drainage;
 - ° Market demand and financial feasibility studies conducted by the CBJ or private developers;
 - ° CBJ disposition/development strategies for lands under its ownership.
- Require information about the following from potential developers in new growth areas:
 - ° Demographic characteristics, economic conditions, amenities, and growth potential of the CBJ;
 - ° Characteristics and development advantages/disadvantages of each potential new growth area;
 - ° State and local planning, regulatory, and financial requirements and opportunities.

HOUSING

One of the CBJ's most important responsibilities is to provide a safe, healthy, and pleasant living environment for its residents. Although it does not construct housing, the CBJ plays a key role by establishing land use policies and development standards, providing public services, and subsidizing certain types of development.

The purpose of this section is to recommend policies which encourage adequate housing for all Juneau residents and protect the character and livability of its neighborhoods. They are the basis for the residential land use policies and land use plan map in Sections IV and V.

SUMMARY OF FINDINGS

- Between 1970 and 1980, Juneau's population increased 44% while its housing stock grew by 70% to nearly 7,700 units. By 1982, nearly 8,100 housing units were available. Similar to national trends, the average number of people per unit in Juneau declined during this period, and housing production has generally just kept up with demand.
- Vacancy rates for both sales and rentals are estimated by some sources to be less than 1%, supporting a general perception of housing shortages in the community. However, the 1980 census indicates rates of 2.2% for owner-occupied and 5.5% for rental units.
- The distribution of housing by type is summarized in Table II-4.

Table II-4

HOUSING DISTRIBUTION BY TYPE (1982)

<u>Type</u>	<u># Units</u>	<u>Percent</u>
Single family and condominiums	4,103	51%
Multi-family	2,768	34
Mobile homes	<u>1,216</u>	<u>15</u>
TOTAL	8,087	100%

Source: CBJ Assessor, 1982 records.

- The number of owner-occupied units -- single family homes, duplexes, condominiums, and mobile homes, -- has more than doubled since 1970. In 1980, 63% of Juneau's units were owner-occupied, increased from 50% ten years before. At the same time, housing costs have risen significantly; currently, the median price of a single family home in Juneau is approximately \$100,000.
- The supply of rental housing increased by little more than 20% in the past decade. Relatively few new rental units have been built while an increasing number of existing units have been converted to condominiums and commercial office uses. By 1980, rental units constituted 37% of CBJ's housing stock, as compared to 50% in 1970.
- There appears to have been a significant shift in housing ownership patterns from 50% owner-occupied/50% rental in 1970 to 63%/37% in 1980; the latter approaches the national average of 64%/36%. A state law passed in 1974 provided for compensation to homeowners, not investors in rental housing, for the lost market value of their homes if the state capital were to move. This factor, coupled with state-subsidized low-interest residential mortgages, favored the construction of owneroccupied housing since that time. The trend may not continue now that the capital issue has been decided in Juneau's favor.
- The shortage of rental units, as indicated by apparent low vacancy rates and increasing rents, limits the housing choice of households who prefer this type of housing due to lifestyle or income. Low income families, many of whom share or live in substandard units, are affected particularly.
- Housing stock generally is in good condition; approximately half of all residential units has been constructed since 1970. Most marginal and substandard units, estimated to be less than 5% of the total, are located in downtown Juneau.
- Approximately 4,200 additional housing units, or about 280 units annually, will be required to accommodate Juneau's projected population growth between 1982 and 1997. Additional new units will be needed to replace those which are demolished or converted to nonresidential uses.
- To maintain existing ownership patterns, that is, 63% owner-occupied/37% rental, the rental units should constitute at least one-third of all new housing starts; this is a significant increase over construction levels during the 1970s. The CBJ can facilitate this construction indirectly by zoning adequate land for medium and high

density residential development; and directly, through subsidizing developers who set aside a percentage of units for low and moderate income families.

- Several current and proposed government programs encourage new residential construction. These include mortgage subsidies available through the Alaska Housing Finance Corporation and the CBJ, and public housing and rental subsidies from the Alaska State Housing Authority and federal Department of Housing and Urban Development (HUD).

POLICY 7: HOUSING AVAILABILITY AND AFFORDABILITY

An estimated 4,200 additional housing units will be required to accommodate Juneau's projected population growth between 1982 and 1997. As housing choice is influenced both by lifestyle and income, the CBJ should encourage and facilitate the provision of a variety of housing opportunities -- single family detached and attached housing, condominiums, apartments, and mobile homes -- at reasonable prices. Insuring an adequate supply of rental housing, particularly for low income households, is an important priority.

7 IT IS THE POLICY OF THE CITY AND BOROUGH OF JUNEAU TO ENCOURAGE THE HOME BUILDING INDUSTRY TO PROVIDE A VARIETY OF HOUSING OPPORTUNITIES IN SUFFICIENT QUANTITIES AND AT AFFORDABLE PRICES TO MEET THE HOUSING NEEDS OF ITS RESIDENTS. PROVISION OF AN ADEQUATE SUPPLY OF HOUSING FOR LOW AND MODERATE INCOME FAMILIES IS A TOP PRIORITY.

IMPLEMENTING ACTIONS:

- Designate an adequate amount of vacant land for all types and densities of residential development on the comprehensive plan land use map, based on residential land use policies in Section IV. Revise zoning map to reflect these designations.
- Streamline, if necessary, the development review process, thus reducing time consuming and costly delays, e.g. one-stop permits, simplified forms, administrative rather than planning commission review of variances, etc.
- Support public sector programs which facilitate the construction of affordable housing for moderate and low income households by:

- ° Adopting a five year housing development plan identifying housing targets; potential funding sources; and public/private roles and responsibilities.
- ° Exploring possibilities of donating or selling at below-market rates suitable parcels of CBJ selected lands to developers of rental housing willing to earmark up to 25% of units for low and moderate income rental families.
- ° Maintaining and, if possible, augmenting the CBJ's rental housing construction subsidy program.
- ° Encouraging the State of Alaska to provide construction subsidy and rental assistance modeled on federal Section 8 programs.
- ° Permitting housing projects for the elderly and handicapped in all residential districts, subject to development standards which assure compatibility with surrounding uses.
- Encourage innovative siting, design, and construction techniques in new residential developments which reduce construction and maintenance costs by:
 - ° Reviewing and modifying, if necessary, local building and fire codes to permit use of new, cost-efficient construction techniques and materials, consistent with acceptable health and safety standards.
 - ° Expanding definition of conventional dwelling unit to include prefabricated housing which meets specifications of the Uniform Building Code (UBC) and is constructed on a permanent foundation.*
 - ° Reviewing planned development (PD) provisions in zoning code to insure maximum opportunity for flexible siting, design, and construction of residential developments. As an incentive, grant density bonuses which permit construction of more units than permitted by underlying zoning, to developers who exceed legal requirements.

* Does not generally include mobile homes, now widely referred to as manufactured housing, which are constructed to less stringent HUD specifications on a chassis which permits transportation to site.

- Encourage development of well-designed and maintained mobile home parks and subdivisions by:
 - ° Permitting their development by right in medium and high density areas designated on the land use plan map.
 - ° Allowing such developments as a conditional use in low density areas designated on the land use plan map.
 - ° Adopting design guidelines and standards in the revised development regulations which require adequate landscaping and screening; permit storage facilities; establish buffers between the mobile home development and adjacent properties; increase the minimum size of a mobile home park from 2 to 5 acres; restrict on-site storage of boats and recreational vehicles; and require mobile homes to be adequately secured to the ground.

POLICY 8: HOUSING CONDITION

As approximately one-half of all residential units have been constructed since 1970, CBJ's housing stock generally is in good condition. By encouraging its preservation/rehabilitation, the CBJ can minimize the need for new units. In addition, rehabilitation of homes of historic significance will enhance Juneau's social and cultural vitality.

8 IT IS THE POLICY OF THE CITY AND BOROUGH OF JUNEAU TO FACILITATE THE PRESERVATION AND REHABILITATION OF EXISTING HOUSING. PROTECTING RENTAL HOUSING FROM DEMOLITION OR CONVERSION TO OTHER USES IS A TOP PRIORITY.

IMPLEMENTING ACTIONS:

- Discourage the conversion of rental units to other uses by:
 - ° Stimulating construction of additional commercial and governmental offices to relieve pressure to convert housing to non-residential uses, e.g. work with state to provide new space for state offices; offer property tax incentives to commercial developers.
 - ° Requiring public agencies to replace rental units demolished or converted to non-residential uses resulting from their activities or programs.

- ° Subjecting proposals to convert rental units to other uses to Planning Commission review. Conditions imposed on developers whose projects for conversion are approved may include:
 - . Providing relocation assistance to displaced occupants.
 - . Assessing fees up to 5% of a unit's sale price to be placed in a special fund for low income loans to facilitate construction of new and/or rehabilitation of existing rental units.
- Continue utilizing federal Community Development Block Grant (CDBG) monies to provide low interest housing rehabilitation loans.
- Adopt standards for rehabilitation which meet acceptable levels of public health and safety.
- Consider granting ten-year property tax exemptions in return for meeting building and fire code specifications in substandard units.
- Identify residential property of historical significance, using the Downtown Historic District Development Plan and other sources; document public and private funding sources for rehabilitation of these properties; assist owners in obtaining these funds.

ECONOMIC DEVELOPMENT

The economic circumstances of an area help determine the amount, rate, and type of land development; they also influence the demand for housing and public facilities and services and have a strong relationship to the overall quality of living.

SUMMARY OF FINDINGS

- The economy and population of Juneau developed originally to support mining activities in the area. Since Juneau became the territorial capital in 1906, there has been increasing reliance on government as the major support for the area's economy. Juneau has more than doubled its population since Alaska became a state in 1959, in large part as a result of state government expansion. The increased state role is most evident in resource management and community development activities financed by the state's share of revenues from oil originating in the Prudhoe Bay area.
- Employment can be categorized as "basic" and "support." Basic jobs are those generated and paid for by outside income; support jobs are generated by the exchange of dollars within the community. For every 100 basic sector jobs in Juneau in 1980, there were 93 support positions. The primary contributors to Juneau's basic employment are federal and state positions with central and regional functions. The former are statewide responsibilities, while regional positions serve southeast Alaska. In 1980, there was a total of 5,842 basic sector jobs in Juneau, of which 4,937 were government positions. Government therefore generates approximately 84% of basic sector employment. Tourism, the fishing industry, and the ANCSA corporations provide additional basic sector jobs.
- The major components of the 5,466 support sector jobs are retail and wholesale trade, government to serve the local population, services and transportation, and public utilities. Approximately 2,400 are retail and service positions and 1,300 government serving the local population.
- Opportunities for expanding the economic base are limited, due to high wages, physical isolation, and high transportation costs to other areas.
- The potential for economic expansion is primarily in resource-based industries, wholesale and distribution activities, and tourism. State government growth is

likely to provide nearly three times as many new basic jobs over the next 15 years as the combined total of these other activities.

- Through 1997, total employment in the CBJ is projected to increase by approximately 60% to more than 18,000. Most of this growth will be caused by further expansion of state government.
- An important characteristic of the Juneau economy is the relatively low level of retail sales activity in comparison to other Alaskan cities. This is a reflection of the fact that Juneau residents make many of their purchases by mail, in Seattle, and elsewhere. The major reason for this "leakage" of sales is the lack of variety and inventory of goods in local stores and their relatively high prices. There has been little investment in retail facilities in Juneau in recent years, probably due to the uncertainty regarding its continued status as the state capital.
- Considering the decision by Alaskans to retain the capital in Juneau, the economic outlook for the area is favorable. State employment growth probably will require construction of new offices and other facilities in the downtown area and elsewhere. It also is likely that there will be substantial investment in new and expanded retail facilities.
- New industrial areas may be required to supplement the space limitations and access problems in the south waterfront area. Such facilities also could accommodate expanded wholesale, distribution, and fish processing activities, and serve as staging areas for mining and minerals exploration.
- As a retail center, the downtown area has been displaced by government offices, with retail development moving to outlying malls in the airport area and Mendenhall Valley. It is anticipated that retention of the capital in Juneau will result in development and consolidation of major state offices and facilities in accordance with a unified development plan. The economic vitality of the downtown will be strengthened by development of a capital complex, vacation of retail space currently occupied by government offices, further expansion of tourism, growth in office-related employment, and implementation of the Downtown Historic District Development Plan.

POLICY 9: STATE CAPITAL

Juneau's position as the state capital of Alaska is not only a major source of identity for the community but its major economic activity; nearly one-third of the work force is employed by the State of Alaska. In reaction to the uncertainty regarding the future location of the capital, the state has invested few resources in new facilities for several years. Now that the decision to remain in Juneau has been made, it will be necessary to build more than 270,000 net square feet of new office space to accommodate anticipated demand by 1994. To insure that these facilities are planned and provided in an economic and timely manner, state and local officials should coordinate their activities carefully. This growth will have significant impacts on all other development within the CBJ, including housing, transportation, public services, cultural, commercial, and recreation.

9 IT IS THE POLICY OF THE CITY AND BOROUGH OF JUNEAU, THROUGH A COOPERATIVE EFFORT WITH THE STATE OF ALASKA, TO PLAN FOR AND SUPPORT DEVELOPMENT OF AN ATTRACTIVE SETTING, FACILITIES, AND OTHER SERVICES TO ENHANCE THE STATE CAPITAL

IMPLEMENTING ACTIONS:

- At the earliest possible date, initiate discussions with representatives of the state legislature and appropriate state agencies to establish a joint planning body for the downtown capital complex and surrounding area. The tasks of the commission include:
 - ° Defining the physical boundaries of the state capital planning area.
 - ° Determining facility needs utilizing data from the Juneau "No Move" Study, New Capital Site Planning Commission, and additional information, if needed.
 - ° Formulating a facilities plan which identifies the nature, timing, and cost, and local/state roles and responsibilities for all needed improvements.
- Request federal agencies to coordinate their plans for expansion or modification of federal facilities in the downtown area with CBJ and state plans for state capital facilities.
- Coordinate capital facilities planning with the downtown planning and development program by assigning the same member of the CBJ planning staff to both projects.

POLICY 10: DOWNTOWN JUNEAU

Downtown Juneau has traditionally been the economic, civic, and cultural center of the CBJ. With the decision to retain the capital in Juneau, opportunities and pressures for development downtown will increase. It is important that new development be based on community objectives for the waterfront, capital complex, historic district, and other areas. Careful planning for public facilities and development of an urban design concept and development standards for the area are necessary.

10 IT IS THE POLICY OF THE CBJ TO EXPAND THE ROLE OF DOWNTOWN JUNEAU AS THE CIVIC, CULTURAL, AND ECONOMIC CENTER OF THE COMMUNITY THROUGH CAREFUL URBAN DESIGN AND PLANNING OF PUBLIC AND PRIVATE FACILITIES.

IMPLEMENTING ACTIONS:

- Prepare and implement a detailed downtown plan including but not limited to the waterfront, capital complex, historic district, commercial, and industrial areas.
- Incorporate plans under preparation for the development of the Gold Creek site on the Juneau waterfront in the downtown plan.
- Coordinate and possibly combine planning for the downtown with the joint CBJ-state planning and development effort for the capital complex.

POLICY 11: TOURISM AND VISITORS

Tourism in Juneau has been expanding at an annual rate of approximately 10% in recent years. Construction of Centennial Hall and retention of the capital will lead to additional increases in tourism, conventions, and business visitation. These activities add to the economic diversity of the CBJ and the strength and vitality of the downtown area. The CBJ can assist in the development of these economic activities.

11 IT IS THE POLICY OF THE CBJ TO EXPAND TOURISM, CONVENTION, AND OTHER VISITOR-RELATED ACTIVITIES, AND DEVELOP FACILITIES TO SERVE THESE ACTIVITIES AND THE NEEDS OF LOCAL RESIDENTS.

IMPLEMENTING ACTIONS:

- Work with local and state groups and appropriate agencies to undertake a marketing campaign to attract activities to the Juneau convention center now under construction.
- Work with representatives of the cruise ship industry, Chamber of Commerce, and other tourist-oriented businesses to plan for additional or improved moorage facilities in the Juneau harbor; develop such facilities as required. (See Policy 13: NEW PORT FACILITIES, Page II-29, and Policy 39: REGIONAL TRANSPORTATION SYSTEM, Page VI-3.
- Design new convention and tourist facilities for multi-purpose uses to accommodate local residents as well as visitors.

POLICY 12: UNIVERSITY OF ALASKA, JUNEAU

The University of Alaska, Juneau (UAJ) is an important contributor to the educational, social, cultural, and economic vitality of the CBJ. Through cooperative effort, the UAJ will be able to expand to accommodate its needs and in a manner consistent with the planning and development objectives of the CBJ.

12

IT IS THE POLICY OF THE CBJ TO SUPPORT EXPANSION AND DEVELOPMENT PLANS OF THE UNIVERSITY OF ALASKA, JUNEAU.

IMPLEMENTING ACTIONS:

- Work with representatives of the UAJ to determine the needs of the university for expansion and development. Give particular attention to the development plans of the UAJ which affect land use policies in Auke Bay. See Policy 46: SCHOOLS, page VI-18.

POLICY 13: NEW PORT FACILITIES

The major port facilities for commercial and industrial goods and materials are located on the southern part of the downtown waterfront. Because of the geography and development pattern of that area, room for expansion is limited. In addition, traveling up the Gastineau Channel is a significant detour for most barge traffic. Truck traffic to and from the port adds to the noise and congestion in the downtown area. New port facilities north of the Gastineau Channel, on Douglas Island, or elsewhere, would

be more accessible to marine traffic of southeast Alaska. An appropriate site should provide protected docking space and adequate land for storage and industrial facilities.

13 IT IS THE POLICY OF THE CBJ ASSURE THAT SUITABLE LAND IS AVAILABLE FOR NEW PORT AND WATER DEPENDENT AND RELATED FACILITIES TO SUPPORT WHOLESALING AND DISTRIBUTION, FISHING, MINING, AND OTHER RESOURCE-BASED ACTIVITIES.

IMPLEMENTING ACTIONS:

- Protect from land use conflict, potential sites for new port and water dependent and related industrial facilities, including the Outer Point and Fritz Cove areas on North Douglas Island.
- Prepare a detailed engineering and economic feasibility analysis of potential new port facility sites. See Policy 39: REGIONAL TRANSPORTATION SYSTEM, page VI-3.
- Evaluate the interdependency of a second channel crossing and new port facilities on Douglas Island as part of a feasibility study of a second crossing to connect the island with the mainland in the vicinity of the airport. See Policy 42: SUBAREA TRANSPORTATION NEEDS, page VI-7.

POLICY 14: COMMERCIAL AND INDUSTRIAL DEVELOPMENT

Commercial and industrial activity requires sufficient and suitable land. Careful attention to the space requirements and locational considerations of potential uses is necessary to promote and maintain the local economy.

14 IT IS THE POLICY OF THE CBJ TO DESIGNATE SUFFICIENT AND SUITABLE LAND FOR ANTICIPATED COMMERCIAL AND INDUSTRIAL DEVELOPMENT, AS PART OF ITS OVERALL ECONOMIC DEVELOPMENT PROGRAM.

IMPLEMENTING ACTIONS:

- Follow the specific land use policies (Section IV) and land use plan map (Section V) of this plan which establish criteria for designation of commercial and industrial land.

- If it is demonstrated in the future that additional land is needed for commercial or industrial uses, or that there are particular locational requirements for certain activities, consider appropriate amendments to the land use map. They should be evaluated in relation to all applicable policies of the comprehensive plan.
- Require potential developers of industrial facilities and other major commercial developments in Sensitive Areas to submit detailed site-specific analyses which address all pertinent issues.

COMMUNITY DEVELOPMENT

The CBJ has increasingly become involved in development activities such as the Centennial Hall convention facility now under construction, senior and low and moderate income housing projects, parking facilities, and the proposed Gold Creek development. Future possibilities include port and marina facilities, a performing arts center, public uses for some portion of its selected lands, and joint planning and development of a capital complex with the state.

Of special importance to future land use is the relationship of the following policies to the management of the approximately 19,500 acres of land selected by the CBJ under the terms of the Alaska Statehood Act. As expressed in its proposed lands ordinance, the CBJ considers these lands to be held in the public trust, to be disposed for private use when they serve the public interest.

SUMMARY OF FINDINGS

- In response to demand for subsidized housing and facilities such as the convention center, the CBJ has expanded its role in development. However, current and planned activities are considered complementary to private development.
- The development role requires specialized knowledge and experience in real estate, management, financial analysis, and public administration. The CBJ has relied primarily on consultants to provide these particular skills. If development is to be an ongoing responsibility, a permanent management/coordinating function within the local governmental structure is needed.
- State decisions regarding administration and disposal of its selected lands in the CBJ should be coordinated with local plans and policies.

POLICY 15: PLANNING AND DEVELOPMENT RESPONSIBILITIES

Due to the CBJ's increasing role in planning and development, and because of the close relationship between these activities, an assignment of responsibility for these functions within local government is warranted.

15

IT IS THE POLICY OF THE CBJ TO ASSIGN THE PLANNING DEPARTMENT RESPONSIBILITY FOR ALL PLANNING AND DEVELOPMENT FUNCTIONS OF THE CBJ. THE PLANNING DEPARTMENT WILL COORDINATE DEVELOPMENT ACTIVITIES OF THE PRIVATE AND PUBLIC SECTORS FOR PROJECTS WHICH ARE CONSISTENT WITH THE COMPREHENSIVE PLAN AND MEET IMPORTANT PUBLIC NEEDS.

IMPLEMENTING ACTIONS:

- Undertake, where appropriate, development responsibilities for parking facilities and publicly subsidized housing programs, development and management of public lands, and redevelopment activities.
- When it is determined to be in the public interest, serve as developer of certain portions of the CBJ's selected lands. See New Growth Areas, page II-16, for discussion of this issue.

POLICY 16: CBJ AND STATE SELECTED LANDS

The CBJ has or soon will have title to approximately 20,000 acres of land (usually referred to as "selected lands"); most of this is close to existing areas of development. This acreage is approximately equal to all current private land holdings in the CBJ. The CBJ intends to prepare for eventual private use of a portion of these lands. The state also has selected lands in the CBJ, some of which it has already committed to private recreational use. Careful evaluation of their development potential and market demand is an important aspect of planning for their efficient and appropriate use.

16

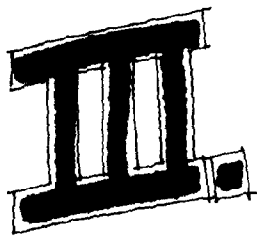
IT IS THE POLICY OF THE CBJ TO EVALUATE THE USE AND DEVELOPMENTAL POTENTIAL OF ALL CBJ AND STATE SELECTED LANDS. CBJ AND STATE SELECTED LANDS WILL BE DESIGNATED AND MANAGED AS PUBLIC OPEN SPACE WHERE NATURAL RESOURCES AND AMENITIES, NATURAL HAZARDS, AND RECREATIONAL VALUES WARRANT. CBJ AND STATE SELECTED LANDS WILL BE COMMITTED TO PRIVATE DEVELOPMENT WHERE THERE IS ASSURANCE OF SUFFICIENT MARKET DEMAND AND WHEN IT IS DETERMINED TO BE IN THE PUBLIC INTEREST.

IMPLEMENTING ACTIONS:

- Adopt a lands ordinance consistent with the comprehensive plan which will serve as the major means of implementing policies and guiding management, development, and disposition of selected lands. The ordinance should include

provisions for public involvement in the evaluation of the appropriate use and disposal of selected lands.

- Classify CBJ and state selected lands and other CBJ-owned lands for residential, commercial, industrial, and recreation/resource uses, based on the policies and land use designations of this plan.
- Designate CBJ and state selected lands and other CBJ-owned lands for public open space, based on the natural resources and hazards and open space and recreation elements of this plan.
- Base disposal of CBJ and state selected lands on demonstrated market demand and evidence that disposal will be in the public interest. Coordinate activities with an orderly system for extending and constructing the public facilities and services called for in the Transportation/Public Facilities and Services element of the plan.
- Develop a coordinated program for evaluating and reviewing selected lands owned by the CBJ and State of Alaska to determine appropriate management and disposition actions.



NATURAL RESOURCES AND HAZARDS

- Natural Resources
- Natural Hazards
- Sensitive Area Procedures

III. NATURAL RESOURCES AND HAZARDS

NATURAL RESOURCES

Juneau is situated in a spectacular and varied natural setting. Its aquatic and terrestrial resources are of exceptional economic, aesthetic, and recreational value, but also have numerous implications for land use planning and management. In addition to their distinctive characteristics, each resource is interdependent in a complex and often highly sensitive environment.

The natural resources discussed in this plan include wildlife, fish, minerals, wetlands, and other natural features with distinctive aesthetic or recreational qualities, such as beaches, open space, and stream corridors.

While site-specific information is limited, the information gathered is sufficient to serve as the basis for this comprehensive plan. Detailed data and analysis of natural resources and accompanying maps are presented in the Technical Appendix, sections II through VI.

SUMMARY OF FINDINGS

Fish and Wildlife

- The major aquatic habitat types in the CBJ are coastal marine waters, intertidal flats, estuaries, fresh and saltwater wetlands, rivers, and lakes. These areas contain critical spawning and rearing habitat for many marine species, including salmon, trout, char, herring, halibut, rockfish, clams, mussels, and crabs.
- Development has been accompanied by grading, filling, and channeling of waterways as well as interception of ground and surface water. This has caused the degradation of streams and fish resources in the Juneau area. Among the streams most seriously affected are Gold, Lemon, Duck, and Jordan Creeks. Those which retain important fish resource values are Fish, Auke, Montana, Steep, Peterson, and Cowee-Davies Creeks.
- All intertidal flats and intertidal shorelines north of the Mendenhall River estuary and on Douglas Island are important spawning and rearing habitats for many valuable fish and shellfish.
- The herring and shellfish habitats of Auke Bay are sensitive to any major development activity which may affect water quality or other physical characteristics.

- Bald eagles are present in the Juneau area in large numbers and subject to the Bald Eagle Protection and the Endangered Species Acts. Shoreline areas and old growth forest habitat are prime nesting areas. The U.S. Fish and Wildlife Service recommends a non-buildable buffer zone of at least 330 feet around known eagle nests and retention of shoreline habitat in this vicinity to a depth of one-eighth mile.
- Black bear habitat exists throughout the CBJ. Potentially dangerous conflicts with humans have resulted from the bears' attraction to garbage in populated areas.
- Sitka black-tailed deer is an important game species whose populations are limited by the availability of wintering habitat. Optimal wintering areas, which are predominantly located in portions of old growth forests, have been identified on Douglas Island and around Lemon Creek. The loss of wintering habitat or the intrusion of human activities and domestic animals reduces the deer population.
- Waterfowl use extensive portions of the marine, estuarine, and freshwater habitats and adjacent uplands. Concentrated use and breeding occur in the wetland and shoreline areas of Echo Cove, Eagle River Delta, Auke Bay, Mendenhall Flats, and Gastineau Channel. The principal threat to waterfowl is development in wetlands and shoreline. Estuarine areas also are important to bald eagles, black bears, brown bears, other fur-bearing mammals, and fisheries. The Mendenhall Flats is within a wildlife refuge of the Alaska Department of Fish and Game (ADF&G).
- Marine mammals, most notably humpback whales and sea lions, are present in significant numbers in the Juneau area. Development in the marine environment itself, or in areas connected to these waters, may affect these animals. Indirect impacts on marine mammal populations can occur from alterations to complex food webs. The entire marine area of the CBJ is a habitat critical to the survival of humpback whales. The Stellar sea lion ranges throughout the marine areas in the CBJ and has a major haulout area on Benjamin Island.
- In addition to their ecological importance, and in some instances, to their value as game, wildlife of the CBJ are an important natural amenity.

Vegetation and Wetlands

- Wildlife often is associated with particular vegetation habitat types which provide nesting, shelter, or feeding areas. Certain habitats, such as timber areas, also possess economic value.
- A prevalent habitat type in the Juneau area is the coniferous forest; it also is an important economic asset to the region. Much of this habitat is within the Tongass National Forest controlled by the U.S. Forest Service. The location and scale of harvest can affect the type and amount of wildlife habitat.
- Both fresh and saltwater marshes (wetlands) offer a unique and limited habitat within the CBJ. Erroneously once considered wastelands, their valuable contributions to both aquatic and terrestrial ecosystems have been recognized in recent years. These include fish and wildlife habitat, food web contributions, stormwater retention, and water quality enhancement. As a result, several state and federal regulations (e.g. Alaska Coastal Management Program and Corps of Engineers 404 permits) help minimize losses to wetlands associated with development activities. These habitats occur in estuarine, stream corridor, and lakeshore areas of the CBJ.
- Intertidal flats form a closely interacting ecosystem with adjacent marine waters and support a diverse population of fish and waterfowl, marine mammals, and other aquatic life. They are relatively scarce in the CBJ and vital to commercial and sport fisheries.
- Under Phase I and Phase II previously completed as part of the Juneau Coastal Management Program studies, Berners Bay and Sweetheart Flats were proposed as Areas Meriting Special Attention (AMSAs). While they are outside the study area of this plan, a brief review of existing data supports this recommendation.

Stream Corridors and Lake Shorelines

- In addition to their natural resource values, stream corridors are frequently important and unique recreational and scenic areas. A 200-foot corridor on either side of streambanks, except those heavily modified such as Gold Creek, encompasses the most important riparian habitat.
- In many instances, stream corridors also represent floodways and floodplains. These are addressed in detail in the Natural Hazards policies of this section.

- Development along stream corridors and lake shorelines can destroy their ecological, scenic, and recreational values. It also can cause destruction of stream banks, increased runoff, sedimentation and pollution, and increase the danger of flooding. Carefully designed development responsive to the conditions of the site can diminish the potential negative impacts on the aquatic and terrestrial ecosystems of these areas.

Mineral Resources

- Economically important minerals within the Juneau area are: gold and silver associated with lead and zinc; copper; and sand, gravel, and quarry rock used in construction.
- The first metalliferous deposits of the gold belt were found near Juneau in 1880. Prospecting was most intense around 1900-1910 and dwindled by World War II. Recently, as gold and silver prices have risen, interest in mining has revived. In 1981, mining was Alaska's fourth largest and fastest growing industry. In Juneau, a record number of claims was filed in 1980 and 1981.
- Most mining activity in the Juneau area operates on a small scale. The Noranda Mine on Admiralty Island is expected to begin operation in 1985 as a large scale mining operation, extracting gold, silver, copper, and other metals. Staging operations and personnel for the mine will be based in Juneau.
- Growth and development in the Juneau area has increased demand for sand, gravel, and quarry rock. The most extensive deposits of sand and gravel are in the valleys of the Mendenhall and Herbert-Eagle Rivers, and Lemon Creek. Primary sources of sand are the alluvial deposits within the Mendenhall Valley and areas adjacent to the Gastineau Channel. Rock suitable for quarrying is located throughout the Juneau area. The recently completed CBJ sand, gravel, and quarry rock study is the primary source of information regarding the location of these resources.
- Development in areas where potential sand and gravel deposits are located can preclude extraction of these resources. As growth and development continue in the Mendenhall Valley and Lemon Creek areas, pressure for closing existing pits may grow.

Environmental Quality

- Air quality in the Juneau area generally has been exceptionally high. However, recently it has become a serious problem in some areas, due to the rapid increase in urban development and installation of fireplaces and woodstoves. The Mendenhall Valley is the area most seriously affected by air pollution, due to air inversions during the winter months.
- The Alaska Department of Environmental Conservation (DEC) has been monitoring air quality in the CBJ since only 1981, and no conclusive results are yet available. The DEC also has been conducting a campaign to educate the public about techniques to alleviate air pollution. Improvements in woodstove technology offer opportunities for substantial reductions in emissions.
- Water quality problems in the CBJ are associated primarily with contamination of groundwater. Factors affecting groundwater quality are discussed under Hydrology, Section IV of the Technical Appendix. Policies to reduce groundwater pollution potential are included in the Land Use Policies section.
- Noise is a localized problem generally associated with automobile traffic and airport operations. The most severe problems are in the vicinity of the airport, the Mendenhall Peninsula, and parts of the Mendenhall Valley.

POLICY 17: DEER WINTERING HABITAT

Deer wintering habitat in the study area is found nearly exclusively along the west coast of Douglas Island. Its overt destruction or intensive development would reduce the population. While this plan anticipates development on West Douglas that would inevitably lead to the loss of deer wintering areas, it is possible to preserve some of the habitat.

17

IT IS THE POLICY OF THE CBJ TO PRESERVE A SIGNIFICANT PORTION OF AREAS IDENTIFIED AS DEER WINTERING HABITAT.

IMPLEMENTING ACTIONS:

- Designate publicly owned areas identified as deer wintering habitat for public open space uses and/or Sensitive Area-1 (SA-1). Categorize private lands so identified also as SA-1.

- Apply the following guidelines to development proposals in sensitive areas with deer wintering habitat:
 - ° Conduct site-specific studies to identify those portions of a property with the highest deer wintering habitat values.
 - ° Locate development on sites that pose minimum interference with deer wintering habitat.
 - ° Require development plans to include measures which minimize impacts on the habitat.
 - ° Allow destruction or major alteration of vegetation in deer wintering habitat only where there is no reasonable alternative.
- Refer to Policy 26: SENSITIVE AREAS, page III-18, for specific implementing actions.

POLICY 18: EAGLE NESTING AREAS

Although bald eagles are an endangered species in most parts of the U.S., they are a relatively common sight in the Juneau area, and are shielded from interference or destruction by federal law. Locally, adequate protection can be given to this species by protecting nesting areas from conflicting land uses and human activity.

18

IT IS THE POLICY OF THE CBJ TO PROTECT AREAS SURROUNDING IDENTIFIED EAGLE NESTS FROM CONFLICTING LAND USES.

IMPLEMENTING ACTIONS:

- Designate as Sensitive Area-1 (SA-1) a site within a 330-foot radius of eagle nests.
- Consider open space or low density land use designations where eagle nest concentrations are particularly high.
- Apply the following guidelines to development proposals in Sensitive Areas with eagle nests:
 - ° Allow no permanent structures or docks within a 330-foot radius of nesting sites.

- ° Prohibit removal of old growth trees or snags within a 330-foot radius around the nesting sites.
- Refer to Policy 26: SENSITIVE AREAS, page III-18, for implementing actions.

POLICY 19: STREAM CORRIDORS AND LAKE SHORELINES

These natural amenities possess unique ecological recreational and scenic values. Portions of stream corridors also function as floodways and floodplains. Their values can be maintained and destruction of property from flooding and streambank erosion minimized by careful management of development.

19 IT IS THE POLICY OF THE CBJ TO PROTECT STREAM CORRIDORS AND LAKE SHORELINES FROM ADVERSE EFFECTS OF DEVELOPMENT.

IMPLEMENTING ACTIONS:

- Designate as public open space and/or as Sensitive Area-2 (SA-2) an area extending 200 feet from the mean waterline of a) shorelines of lakes of more than five acres; and b) stream corridors in which the mean annual waterflow is at least ten cubic feet per second. This includes all streams shown in the focus area and study area maps, except Gold Creek, due to its heavily urbanized characteristics.
- Apply the following guidelines to development proposals in lake shorelines and stream corridors designated as sensitive areas:
 - ° Undertake site-specific studies to determine the stream-side characteristics of vegetation and approximate amount of aquatic and wildlife habitat.
 - ° Identify, through site-specific studies, existing development and use patterns, amenity values, stream and storm water flow characteristics, floodplain limits, estuarine conditions, and scenic attributes.
 - ° Design and locate development to avoid erosion and destruction of streambanks, aquatic habitat, streamside vegetation, and wildlife habitat.
 - ° Develop on-site septic and water supply systems in conformance with DEC regulations.

- ° Prohibit dredge spoils on sites at the mouth or banks of streams, in estuarine or shallow areas.
- ° Require, in accordance with Policy 36: PARKS AND RECREATION and POLICY: OPEN SPACE, easements for public access to lake shorelines and stream corridors.
- Give high priority to public acquisition of open space and/or public recreation easements to the stream corridors of Montana Creek and the west side of the Mendenhall River.
- Where development or other causes have led to serious streambank erosion, undertake programs in cooperation with other appropriate agencies to prevent further erosion.

POLICY 20: WETLANDS AND INTERTIDAL AREAS

Wetlands and intertidal areas are extremely important to waterfowl, wildlife, and fisheries, including herring and shellfish, as well as hydrologic and other ecological values. They are also, in many instances, important scenic and recreational areas. Careful management of land use and development can help to maintain the quality of these features.

20 IT IS THE POLICY OF THE CBJ TO PROTECT WETLANDS AND INTERTIDAL AREAS FROM CONFLICTING LAND USE AND DEVELOPMENT.

IMPLEMENTING ACTIONS:

- Designate wetlands and intertidal areas as Sensitive Area-3 (SA-3) and/or as public open space.
- Apply the following guidelines to development proposals in those sensitive areas identified as wetlands. See discussion of fresh and saltwater marshes in the Technical Appendix, Section V.
 - ° Undertake site-specific studies to identify the precise boundaries of the wetland areas according to definition of the U.S. Army Corps of Engineers.
 - ° Identify waterfowl, wildlife, hydrologic, and any other significant ecological characteristics and values.
 - ° Delineate surrounding and nearby land uses. Evaluate historic and scenic qualities and potential public use and access of the site.

- ° Allow only development which is water related or water dependent.
- ° Specify that proposed development must demonstrate it will not significantly harm ecologically important characteristics and values.
- Apply the following standards to development proposals in those sensitive areas identified as intertidal sites:
 - ° Determine, through site-specific studies, the precise boundaries of intertidal areas and their significant ecological (particularly herring and shellfish) and recreational values.
 - ° Identify and map surrounding land uses. Evaluate historic and scenic qualities and potential public use of and access to the site.
 - ° Require developer to demonstrate that development will avoid substantial harm to the significant ecological and recreational values of the site.
- Protect publicly owned coastline areas for recreational use, except for those specific areas identified in this plan for potential development.
- Combine the site specific analysis required for areas designated as SA-3 with the land use plan map (see section V) and other applicable policies of this plan, to form the basis for U.S. Army Corps of Engineers review of consistency with state and local plans as required by Section 404 of the federal Water Pollution Control Act.

POLICY 21: GRAVEL RESOURCES

This resource, essential to construction, is limited to relatively small areas in the CBJ which frequently are subject to development pressures. Because gravel extraction operations often conflict with surrounding land uses, and some forms of development can preempt its use, it is important to take steps to avoid or minimize these conflicts.

21

IT IS THE POLICY OF THE CBJ CONSERVE AND PROTECT FROM CONFLICTING LAND USES KNOWN GRAVEL DEPOSITS AND THOSE IDENTIFIED IN THE FUTURE.

IMPLEMENTING ACTIONS:

- Designate known gravel resource areas as Sensitive Area-4 (SA-4).
- Apply the following guidelines to development proposals in gravel resource areas identified as sensitive areas:
 - ° Undertake site specific studies to determine the extent and quality of gravel resources.
 - ° Accept evaluation by a licensed civil engineer to demonstrate that a significant gravel resource does not exist on a particular site.
 - ° Prohibit permanent structures or other development which would preclude the eventual development of gravel resources.
 - ° Require proposals to develop gravel resources to conform to the proposed CBJ sand and gravel ordinance.
- Land use designations in and near areas designated as SA-4 should recognize the potential for conflict between gravel extraction operations and other development.

POLICY 22: AIR QUALITY

Serious air quality problems in the CBJ have become noticeable only in recent years. They are related primarily to pollutants resulting from the burning of wood. Automobile emissions are also a contributor to the problem. Private and public measures can reduce the problem substantially.

22

IT IS THE POLICY OF THE CBJ TO UNDERTAKE EDUCATIONAL PROGRAMS AND REGULATORY MEASURES TO REDUCE AIR POLLUTION.

IMPLEMENTING ACTIONS:

- Undertake cooperative programs with the Alaska Department of Environmental Conservation (DEC).
- Consider the feasibility of requiring appropriate pollution control devices on new woodstoves.

- Undertake transportation improvements to reduce congestion and encourage residents to utilize alternative forms of transportation. See Policy 40: LOCAL TRANSPORTATION SYSTEM, Page VI-5, and Policy 41: ALTERNATIVE TRANSPORTATION MODES, Page VI-6.

POLICY 23: NOISE

An increasing problem in Juneau, the most significant sources of noise are the airport and automotive traffic. Land use designations and other measures can minimize this nuisance.

23

IT IS THE POLICY OF THE CBJ TO MINIMIZE NOISE IMPACTS ON RESIDENTIAL AND OTHER PARTICULARLY SENSITIVE DEVELOPMENT.

- Establish land use patterns which consider the effects of high noise generators, particularly in the airport vicinity and along major traffic corridors. See section V, Land Use Plan Map, for further guidance.
- Require berms and planting strips along highways and major arterials.
- Modify building codes to require the use of insulating materials in structures in major noise producing areas.

NATURAL HAZARDS

In certain instances, factors in the complex and sensitive environment of Juneau combine to form conditions hazardous to human health, safety, and property. Among these are landslides, avalanches, flooding, and earthquakes. Hazards to human health also develop through contamination of water in failed septic systems.

Though it is difficult to determine the extent and nature of hazardous conditions on specific sites, enough is known about the relationships among development and soil types, slope, groundwater, and climatic conditions that attention must be given to these factors in regard to land use decisions in Juneau.

The Technical Appendix (section III and IV) includes a detailed discussion of natural hazards and contributing conditions. Maps identify known or probable hazardous areas. Before development is allowed in sensitive areas, site-specific studies should determine the presence and nature of hazards. The sensitive area standards also establish criteria for siting, engineering, and design features that may eliminate or minimize the threats posed by these hazards.

SUMMARY OF FINDINGS

Landslides and Avalanches

- These natural occurrences are described collectively primarily because of their common origin. Snowslide avalanches are most likely to occur on steep, brushy, or non-vegetated slopes. The debris and rubble at the base of steep rock slopes consists of soil and rocky materials which were deposited by slow erosional processes and/or sudden large scale movements of snow and/or rock. These debris slopes are susceptible to landslides. Studies of existing data and an analysis of aerial photographs (presented in detail in the Technical Appendix, Section III) indicate general locations and boundaries of landslide/avalanche areas. This information, however, is insufficient for site specific planning.
- Some development in the vicinity of downtown Juneau is located in areas known to pose moderate and high landslide/avalanche hazard (Technical Appendix, Section III). This is dangerous to human life and property.

Flooding

- Floods occur when climatic factors and development activities alter natural flow conditions in flood prone areas. Warm rainfall on a heavy snowpack or periods of heavy melting contribute to high stream flows and may result in flooding. The most serious flooding (that which threatens human safety and development) occurs when peak stream flows coincide with high tides.
- Development, such as roads and buildings, creates impermeable surfaces which cause increased volumes and rates of storm water runoff. Stream crossings and undersized culverts which are blocked by stream debris or ice restrict the passage of storm flows.
- Coastal flooding can occur as a result of high winds and high tides that create storm surges and wave runups.
- The flood zones identified in this comprehensive plan (Technical Appendix, Section III) were derived from a flood insurance study of the CBJ prepared by the Corps of Engineers for the Federal Emergency Management Agency (FEMA) in 1980.
- Peak annual discharge occurs in the fall months when precipitation is highest. The Old Glacier Highway bridge on Lemon Creek is a major source of flooding because of stream flow restrictions. Recent annual dredging and installation of larger culverts has reduced this flood hazard. In 1958, construction of the flood control channel in Gold Creek ameliorated the flood hazard on that stream.
- Construction in floodways is dangerous to human life and property and further increases flooding potential. Development in the 100 year floodplain should be discouraged.

Seismic Hazards

- The nearest known active fault is the Fairweather, approximately 100 miles west of Juneau. Lynn Canal, Chatham Strait, and the Gastineau Channel are classified as major, though presently inactive, faults.
- Studies by the Corps of Engineers have indicated that Juneau is in a Seismic Risk Zone 3 in which major damage to structures from an earthquake equal to or greater than 6.0 on the Richter scale may occur. In the past 50 years, there have been at least five earthquakes of this magnitude within 125 miles -- the range at which damage might occur.

- Potential effects of earthquakes in the Juneau area include groundshaking, liquefaction, ground fracturing, compaction and settlement, and landslides. Groundshaking causes the most damage to buildings. Liquefaction is the transformation of granular material from a solid to a liquid state, and is dependent primarily on soil type. There are areas of high liquefaction potential in the CBJ. Landslides are most likely to occur in areas previously identified as landslide/avalanche hazard areas. Due to differential settlement, compaction and settlement can damage roads and buildings.
- Earthquakes also can trigger large water waves and destructive flooding of shoreline areas. Tsunamis are tidal waves that move across the open ocean; they are unlikely to affect Juneau because of its inland location. Smaller locally generated waves could cause wave runups in excess of five feet.

Groundwater Quality

- Much of the domestic water supply of suburban and rural areas of Juneau is obtained from wells. The primary threat to groundwater quality is failure of septic systems that are poorly designed or in unsuitable locations. This can pose a threat to human health.
- The evaluation of the septic suitability of land in the Juneau area prepared for this plan (Technical Appendix, Section IV) was based on an analysis of soils, hydrologic units, slope, and flood zones. Soils and hydrologic units reflect the degree of suitability for installation of septic drainfields and potential yields of groundwater supplies. Steep slopes can restrict the placement of individual or community systems; locating drainfields in floodplains could cause groundwater contamination and system failure.
- The soil features which limit suitability for absorption are low permeability, seasonal high water table, and shallow depth to bedrock or impermeable soil types. Most of the soils in the Juneau area are characterized by at least one of these limitations.

POLICY 24: LANDSLIDE AND AVALANCHE HAZARDS

These present a very serious threat to human safety and development in some areas of the CBJ, and their nature and severity have been well documented. Careful evaluation of specific sites and corresponding land use and engineering solutions can help to minimize the risk of disaster.

IT IS THE POLICY OF THE CBJ TO MINIMIZE THE THREAT TO HUMAN SAFETY AND DEVELOPMENT POSED BY LANDSLIDES AND AVALANCHES.

IMPLEMENTING ACTIONS:

- Designate areas of moderate and high landslide/avalanche hazards as public open space and/or a Sensitive Area-5 (SA-5).
- Apply the following guidelines to development proposals in sensitive areas where moderate and high landslide/avalanche conditions have been identified:
 - ° Determine the boundaries of hazard areas, utilizing the landslide/avalanche hazard maps at a scale of 1:36,000 and the Frutiger maps of avalanche areas on file in the CBJ Planning Department.
 - ° Require site-specific studies by a licensed civil engineer if there is doubt concerning the presence and degree of landslide and/or avalanche hazard.
 - ° Include in studies of landslide hazards detailed analyses of topography, vegetation, drainage conditions, and surficial geology. The results should indicate potential debris flow, rate, and force.
 - ° Undertake detailed analyses of topography, vegetation, potential snow accumulation and other factors. The result should be a determination of potential debris flow, rate, and force of avalanche events.
 - ° Prohibit residential and commercial development in areas of high landslide or avalanche hazard.
 - ° Disallow industrial and resource extraction activities in high landslide or avalanche areas unless it is determined that these activities will not increase the threat of landslides and avalanches on existing and potential development.
 - ° Require mitigating measures for development in areas of moderate hazard. These may include dissipating structures or dams, appropriate structural engineering, or other techniques that respond to the specific hazards of that site.

POLICY 25: FLOODPLAINS

Flooding occurs with relative frequency in the Juneau area. It is a natural event that becomes a problem only when it threatens human health, safety, or development. Appropriate land use designations and development requirements can help minimize the potential of flood damage and threats to human health and safety. It is important to distinguish between floodways -- main channels that are essential to the rapid drainage of flood waters, and floodplains -- an area which floodwaters may cover.

25 IT IS THE POLICY OF THE CBJ TO PROHIBIT RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL DEVELOPMENT IN FLOODWAYS AND TO REGULATE DEVELOPMENT IN FLOODPLAINS.

IMPLEMENTING ACTIONS:

- Designate areas within the 100-year floodplain but outside floodways as public open space and/or Sensitive Area-6 (SA-6).
- Use the floodway and floodplain boundary lines outlined on maps prepared by the Corps of Engineers (Technical Appendix, Section III) as the basis for defining flood boundaries.
- Apply the following guidelines to development proposals in sensitive areas containing floodplains:
 - ° Determine the exact boundaries of the 100-year floodplain, using the Corps of Engineers 1980 Flood Hazards Map prepared for the Federal Emergency Management Agency (FEMA).
 - ° Submit detailed engineering studies of floodplain limits for Corps of Engineers review if floodplain limits change in response to land movement or alterations of channel conditions.
 - ° Prohibit construction in floodways, including dock and piers, or alteration of channels without prior approval of the CBJ and Corps of Engineers.
 - ° Require residential, commercial, industrial, and institutional structures within the 100-year floodplain to be built on foundations at least one foot above the floodplain. Require standard structural fill and compaction.

- ° Allow sand and gravel operations, recreational activities, open space, and parking lots in floodplains.
- ° Require industrial equipment and stored raw materials to be adequately bermed or otherwise protected.
- ° Prohibit storage of toxic chemicals.

SENSITIVE AREA PROCEDURES

Development in the sensitive areas discussed previously in this section are subject to special requirements in addition to those established by the underlying zoning. The following policies and implementing actions outline the regulations and procedures to be used by the CBJ in evaluating potential development in these areas.

SUMMARY OF FINDINGS

- The data, analysis, and maps of the Technical Appendix provide the basis for designations of sensitive areas and development guidelines. They relate to the preceding discussion of natural resources and hazards.
- The boundaries of sensitive areas are indicated on Figures V-3A, V-3B1, and V-3B2 in Section V. Greater detail is available in the CBJ Planning Department.

POLICY 26: SENSITIVE AREAS

Sensitive areas are delineated as an overlay on primary land use designations, based on data found in the Technical Appendix, sections II through VI. An effective and practical means of regulating development in sensitive areas is by use of the plan land use map and zoning ordinance.

The process for review of development proposals in these areas requires a developer to submit an application with site plans, maps, text, and other documentation as needed to identify the nature and extent of the hazard or resource and demonstrate how siting, design, and construction techniques will protect it, mitigate adverse impacts, and prevent damage to property or public safety.

26

IT IS THE POLICY OF THE CBJ TO DESIGNATE SENSITIVE AREAS AS AN OVERLAY ON THE LAND USE DESIGNATIONS OF THE COMPREHENSIVE PLAN AND THE ZONING ORDINANCE. STANDARDS AND REVIEW PROCEDURES WILL BE ESTABLISHED TO GUIDE THE PREPARATION AND REVIEW OF PROPOSALS FOR DEVELOPMENT IN SENSITIVE AREAS.

IMPLEMENTING ACTIONS:

- Consult sensitive area maps in Section V for designations of the following types of sensitive areas.
 - ° SA-1 Deer wintering habitat and eagle nesting areas

- ° SA-2 Stream corridors and lake shorelines
- ° SA-3 Wetlands and intertidal areas
- ° SA-4 Gravel resources
- ° SA-5 Landslide/avalanche hazards
- ° SA-6 Floodplain
- Revise the zoning ordinance to include a sensitive area overlay zone as a new category; revise zoning maps to follow sensitive area designations on the comprehensive plan map.
- Establish in the zoning ordinance general procedures for determining allowable development on sites designated as sensitive areas. These procedures should include the following steps:
 - ° Applicant for development in a sensitive area submits detailed, reliable information which defines the extent of the natural hazard or resource on a given site.
 - ° Developer proposes mitigating measures which respond to the guidelines for that specific sensitive area. If a site is within the boundaries of more than one SA, the guidelines for each are applicable.
 - ° The CBJ Planning Commission, with support from its staff, reviews the development proposal, attaching appropriate conditions to any approval which assures avoidance of severe natural hazards and mitigation of impacts on natural resources. In evaluating the development proposal, only the established standards for the applicable sensitive area and the underlying zoning may be considered.
- Incorporate specific standards for resource protection and hazard avoidance of each type in the sensitive areas section of the zoning ordinance.
- Prepare a list of procedures, including a description of the form and content of applications for development in sensitive areas.

IV

LAND USE

☒ Residential

☒ Commercial/Industrial

☒ Open Space, Recreation, Parks
and Historic Resources

IV. LAND USE

The land use policies implement important decisions relating to community form, housing, economic and community development, and natural resources and hazards (Sections II and III). They also are the basis for the land use plan map in Section V. In this section, land use policies are divided into the three major categories: residential, commercial/industrial, and open space, recreation, parks, and historic resources.

These policies should guide the CBJ in adopting appropriate regulatory measures making consistent land use decisions, and investing in public facilities for residential and commercial/industrial development. The zoning code, subdivision regulations, permit processes, and capital improvements program (CIP) are the primary means of implementing these policies. Through the CIP, the CBJ can plan for and develop the necessary public facilities and services -- roads, streets, schools, utilities, and others -- in an orderly and timely manner. These land use policies also should assist the CBJ in its efforts to provide a variety of housing; pursue opportunities for suitable economic development; and promote conservation and rational development of natural resources.

Table IV-1 summarizes the current land uses and projected requirements for residential, commercial, and industrial development. The basis for these projections is presented in the Technical Appendix, Section VIII which also contains a detailed analysis of existing land use in the CBJ.

Table IV-1

CURRENT AND PROJECTED LAND USE REQUIREMENTS
(1982-1997)*

<u>Use</u>	<u>Current Use</u> (acres)	<u>Projected Additional Need**</u> (acres)
Residential	2,521	3,020
Commercial	221	116
Industrial	<u>192</u>	<u>190</u>
TOTAL	2,855	3,326

* The methodology for projecting land requirements is explained in the Technical Appendix, page VIII-23 of Section VIII, Land Use.

** Includes over-allocation factors to allow market flexibility.

By 1997, approximately 3,326 acres of land will be required for residential, commercial, and industrial development. As there are about 21,530 acres of non-federal and non-state vacant land within the study area, there is no shortage of developable land. The policies which follow are designed to guide decisions about its appropriate use -- for development, management as a natural resource, or retention as open space.

RESIDENTIAL

The housing policies presented in this plan will serve to:

- Implement policies and programs to increase the availability and affordability of housing. See Policy 7: HOUSING AVAILABILITY AND AFFORDABILITY, Page II-21.
- Support development of a compact community form. See Policy 2: URBAN DEVELOPMENT PATTERNS, page II-10.
- Provide direction for future public services and facilities. See Policy 43: PROVISION OF PUBLIC FACILITIES AND SERVICES, page VI-13.
- Conserve existing residential neighborhoods while increasing opportunities for a variety of housing types.

SUMMARY OF FINDINGS

The major housing issues in Juneau, as discussed in Section II, Growth and Development, relate to availability and cost, especially in relation to rental housing. Residential land use policies address these issues and also reflect the following findings about current conditions:

- Existing policies and regulations have resulted in major conflicts between residential and commercial/industrial uses; moreover, they do not adequately protect established low density neighborhoods.
- Development has not been coordinated with public facilities and services. The subdivision ordinance does not require adequate infrastructure improvements such as paved roads or adequate drainage prior to development. Neither does it encourage creative design solutions to building problems related to physical site conditions.
- An insufficient amount of land with available or adequate facilities and services is zoned for multi-family residential use.
- Regulations discourage siting of manufactured housing, a possible solution to the need for moderately priced units.

Based on projected estimates of the need for residentially zoned land, 90% of such development is expected to occur within urban service and new growth areas at urban/suburban densities. Table IV-2 indicates the variety of densities needed to carry out the community's intent to provide greater housing opportunities.

Table IV-2

PROJECTED RESIDENTIAL LAND REQUIREMENTS*

<u>Land Use</u>	<u>Assumed Average Density (units per gross acre)</u>	<u># Units</u>	<u># Acres</u>
Rural Residential	0.33	425	1,275
Urban Residential**			
- Low Density	4.0	2,286	571
- Medium Density	10.0	1,143	114
- High Density	30.0	381	13
Subtotal - Urban	-	3,810	698
Land Over-allocation (+150%)	-	-	1,047
Total - Urban	-	3,810	1,745
GRAND TOTAL		4,235 units	3,020 acres

* The methodology for these projections is explained in the Technical Appendix, Section VIII.

** Urban residential development includes land in both urban and new growth areas.

The total of approximately 3,000 acres of physically suitable, residentially zoned land includes a substantial over-allocation for the urban area to permit a range of choice, assure availability of sites, avoid excessive constraint on supply, and retain reasonable land costs. This compares to a current total of 2,521 acres which accommodates approximately 8,100 housing units. For the urban area alone, 1,745 acres of suitable land are needed to accommodate 3,810 residential units.

POLICY 27: RESIDENTIAL LAND AVAILABILITY

Analysis of the current supply of residentially zoned land in the CBJ indicates that there is an insufficient amount with available and adequate public services and facilities for medium and high density residential development and manufactured housing. In order to accomplish the objectives of assuring available, affordable housing for all income levels and household types in the CBJ, more land should be made available.

27 IT IS THE POLICY OF THE CBJ TO ASSURE THAT SUFFICIENT LAND WITH ADEQUATE PUBLIC FACILITIES AND SERVICES IS AVAILABLE FOR A RANGE OF HOUSING TYPES AND DENSITIES TO ENABLE THE PUBLIC AND PRIVATE SECTORS TO PROVIDE HOUSING OPPORTUNITIES FOR ALL CBJ RESIDENTS.

IMPLEMENTING ACTIONS:

- Zone additional land for medium and high density residential development in sufficient quantity to meet projected needs for these housing types in areas with existing or projected arterial access, public transit service, and other adequate public facilities and services.
- Designate sufficient land on the land use and zoning maps to provide for a full range of housing types and densities desired by CBJ residents -- rural residential and low, medium, and high density urban residential.
- Prepare and implement capital improvements programs for public facilities and services to serve a) existing residential areas; b) areas with potential for residential infill development; and c) other areas within the CBJ's urban service boundary which may be suitable for immediate residential development.
- Review and revise zoning regulations as necessary to assure that unwarranted impediments to the use of manufactured housing are removed.
- Utilize the municipal selected lands as one means of providing sufficient land for residential development. Adopt a management program which phases disposal of such lands in accord with projected needs, and bases their use on applicable policies of the comprehensive plan, such as housing, natural resources, open space, and parks.

POLICY 28: RESIDENTIAL LOCATION

This comprehensive plan provides criteria for the location of intensities of residential land use in the land use plan map (Section V) and guides future decisions related to these matters.

28 IT IS THE POLICY OF THE CBJ TO ASSURE THAT RESIDENTIAL DEVELOPMENTS OF VARIOUS DENSITIES ARE APPROPRIATELY LOCATED IN RELATION TO SITE CONDITIONS, SURROUNDING LAND USES, AND CAPABILITY OF PUBLIC FACILITIES AND ROADWAYS. THE LAND USE PLAN MAP IS THE REPOSITORY OF THESE DECISIONS.

IMPLEMENTING ACTIONS:

- Place various categories of residential density on the land use plan map and zoning maps, based on evaluation of the following criteria:
 - ° Physical site conditions -- including slope and areas of natural hazard or high value natural resource designated as sensitive areas.
 - ° Capacity of adjacent streets. Areas designated for medium or high density development should have primary access to a collector or arterial street; low density residential areas should have access to local streets.
 - ° Availability of public facilities and services, especially municipal water and sewer systems.
 - ° Compatibility of potential density with surrounding land uses.
 - ° Potential of specific sites to accommodate suggested density; factors should include size and shape of property and adequacy of internal circulation, parking, screening, and privacy.
 - ° Proximity to public transportation services; preferably, medium and high density development should be within walking distance (1/4 mile) of bus lines.
- Delineate maximum allowable density on land use plan map. Actual densities permitted on specific sites will be determined only after analysis of specific conditions and submission of a site plan which demonstrates compatibility of proposed density with the site, surrounding uses, and other land use policies of the CBJ.

POLICY 29: RESIDENTIAL LAND USE CONFLICTS

A major concern expressed by citizens of Juneau is the need to protect the character of existing, low density, single family neighborhoods from incompatible uses. Their primary concern is to minimize the intrusion of heavy traffic on neighborhood streets and avoid conflicts related to incompatible design, noise, and other factors associated with higher intensity uses.

29 IT IS THE POLICY OF THE CBJ TO MAINTAIN SUBSTANTIALLY DEVELOPED AND ESTABLISHED SINGLE FAMILY NEIGHBORHOODS AT THEIR EXISTING ZONING AND DENSITY DESIGNATIONS AND TO MINIMIZE CONFLICTS BETWEEN RESIDENTIAL AREAS AND COMMERCIAL/INDUSTRIAL AREAS THROUGH APPROPRIATE LAND USE LOCATIONAL DECISIONS AND REGULATORY MEASURES.

IMPLEMENTING ACTIONS:

- Revise the zoning ordinance to reduce or eliminate the possibility of medium and high density residential uses in established single family neighborhoods.
- Review development ordinances to require buffering and screening between incompatible uses and careful review of site development plans.
- Continue to subsidize residential rehabilitation programs to conserve existing housing stock in established single family neighborhoods.
- Within the capital improvements program, consider improvements to the infrastructure in established single family neighborhoods as a high priority.
- Enforce building and fire code provisions and nuisance laws, e.g. governing junk cars, to improve neighborhood safety, health, and livability.

POLICY 30: NEIGHBORHOOD FACILITIES

It is essential that adequate public facilities be available to support planned and needed residential development in the CBJ and assure that high quality neighborhoods are maintained and established. Both the private and public sectors are responsible for providing such facilities.

30 IT IS THE POLICY OF THE CBJ TO REQUIRE PROVISION OR AVAILABILITY OF ADEQUATE TRANSPORTATION ACCESS, SEWER, WATER, AND DRAINAGE FACILITIES AS A CONDITION FOR APPROVAL OF PROPOSALS FOR RESIDENTIAL DEVELOPMENT AND TO SUPPORT ANTICIPATED DEVELOPMENT THROUGH A PLANNED PROGRAM OF EXTENSIONS AND IMPROVEMENTS TO MUNICIPAL SERVICES.

IMPLEMENTING ACTIONS:

- Extend facilities and services to areas planned for residential development based on a capital improvements program. See Policy 43: PROVISION OF PUBLIC SERVICES AND FACILITIES, page VI-13.
- Revise the subdivision ordinance to require developers to provide adequate access, facilities, and services prior to final plat approval. In areas to be served by municipal systems, require platting to allow for infill development when services are available.
- Amend the zoning ordinance and maps to allow appropriate urban densities in areas planned to be served by community sewer and water systems.
- Create public financing and design programs to subsidize community facility systems in new growth areas.
- Develop infrastructure which supports planned development on municipally owned lands.

POLICY 31: RESIDENTIAL SITE DESIGN

Juneau residents support measures which will assure the development of high quality, livable neighborhoods. To accomplish this, regulatory measures and incentives are needed to encourage or require, where necessary, private developers to adopt innovative site design procedures. These will increase physical amenities, protect open space, shelter residential areas from adverse impacts of major streets or incompatible land uses, provide for alternative transportation opportunities, and improve traffic safety.

31

IT IS THE POLICY OF THE CBJ TO REQUIRE NEW RESIDENTIAL DEVELOPMENTS TO MEET MINIMUM CRITERIA FOR OVERALL SITE DESIGN; THESE INCLUDE PRESERVATION OF OPEN SPACE AND NATURAL FEATURES, BUFFERS AND SCREENS, AND SAFE AND CONVENIENT CIRCULATION FOR AUTOS, PEDESTRIANS, AND BICYCLES.

IMPLEMENTING ACTIONS:

- Revise the zoning, subdivision, and other development ordinances to accomplish the following:
 - ° Adopt new design review procedures that assure that proposals for residential development are evaluated in regard to site design, building placement, and factors related to surrounding properties, land uses, and public facilities.
 - ° Encourage clustered and planned developments to minimize impacts on adjacent natural or manmade features.
 - ° Establish a development approval process to require all applications for residential developments to provide detailed site information which identifies natural resources, slopes, soil characteristics, natural hazards, drainage channels, access to streets and public utilities, and existing buildings or historic features.
- Within the development review process, provide clear criteria and a checklist of needed information.
- Offer design review incentives to encourage and reward excellence in site design and provision of amenities or facilities. These may include: allowing increases in density, reducing needed review, waiving fees or charges, and reducing parking requirements as a tradeoff for increased landscaping.
- Develop specific standards for buffering and screening between residential and commercial/industrial uses to ameliorate noise, glare, and other adverse visual affects.

COMMERCIAL/INDUSTRIAL

These policies which provide for needed commercial services and facilities in appropriate locations, support the community form and economic development policies discussed in Section II, Growth and Development. They are the basis for commercial and industrial designations on the land use plan map and necessary revisions to the zoning ordinance and other regulations.

Commercial/industrial uses in Juneau range from neighborhood scale retail to general industry. A considerable proportion consists of public institutions, most notably office facilities of state government and the University of Alaska/Juneau. Water-dependent commercial/industrial uses are another important activity in Juneau. Downtown Juneau and the airport area are the major centers of retail activity; additional commercial areas are located in Douglas, Lemon Creek, and Auke Bay.

SUMMARY OF FINDINGS

- Juneau's distance from national markets, the size and characteristics of the labor force, and lack of land access, are serious limits to the growth of manufacturing and distributive industrial activities.
- Some industrially zoned land is not suitable for manufacturing and distribution uses.
- Adequate marine transportation facilities, e.g. docks, are critical to Juneau's future economic health. Existing facilities are of limited size and in a poor location.
- Growth is likely to occur among resource-based industries such as mineral extraction and processing, fisheries, and timber. Land with good access to maritime shipping channels is required to support this development.
- With adequate planning and accessible community developments such as shopping centers, Juneau can capture a greater share of the local market for retail goods and services which is now "leaked" to Seattle, Anchorage, and elsewhere.
- Downtown Juneau's historic value and role as an employment center present opportunities for increased commercial development.
- The CBJ can become a center for higher education through the growth of the University of Alaska, Juneau.
- As retail/commercial services follow residential development, it will be necessary to provide additional commercial land accessible to centers of population growth.

The following commercial and industrial land use policies reflect in part projections of population and economic growth discussed in section VII of Volume II, Technical Appendix. The analysis of commercial land requirements to serve anticipated growth is based on the assumption that the current ratio of developed retail commercial acreage per capita will increase. Projected commercial and industrial land requirements are summarized in Table IV-3. Commercial land projections include an allowance for 50% excess land beyond the minimum requirements for the 15 year planning period in order to maintain market choice. Industrial land requirements assume that the plan should assure availability of an amount of vacant land equal to 1982 industrial land. The methodology for these projections is described in the Technical Appendix, Section VIII, page VIII-23.

Table IV-3

PROJECTED COMMERCIAL AND INDUSTRIAL LAND REQUIREMENTS
(1982-1997)

	<u>Acres</u>
Commercial Land	116
Industrial Land	<u>190</u>
Total	306 acres

POLICY 32: COMMERCIAL AND INDUSTRIAL LAND AVAILABILITY

The CBJ must designate sufficient vacant land to meet future demand for general commercial/industrial activities. Determination of location and size should be based on the need for such development, land suitability, transportation access, and other appropriate requirements. Through careful planning, retail and employment centers can be located conveniently without resulting in negative impacts upon residential areas. Any decisions to disperse industrial/commercial activity should be balanced with the need to maintain downtown Juneau as the region's governmental, tourist, and cultural center.

32 IT IS THE POLICY OF THE CBJ TO IDENTIFY AND FACILITATE THE DEVELOPMENT OF SUFFICIENT VACANT LAND APPROPRIATELY LOCATED TO ACCOMMODATE FUTURE COMMERCIAL AND INDUSTRIAL USES.

IMPLEMENTING ACTIONS:

- Conduct regular analysis of market for commercial/industrial activities to ascertain changing needs for land and infrastructure.
- Evaluate industrially designated land to determine the suitability and capacity of specific sites.
- Ensure adequate infrastructure for projected commercial/industrial development through a capital improvements program and transportation planning.
- Assure that all commercial development on the land use plan map is located on existing or planned collector or arterial streets.

POLICY 33: RESOURCE-BASED INDUSTRIAL DEVELOPMENT

In addition to state government and tourism, the area's natural resources -- mineral, timber, and fishing -- can become another important economic activity. It is important to promote their long term economic benefits to the community while minimizing their negative impacts upon the environment.

33 IT IS THE POLICY OF THE CBJ TO FACILITATE THE CAREFUL DEVELOPMENT AND MANAGEMENT OF ECONOMICALLY VALUABLE NATURAL RESOURCES WHILE MINIMIZING ENVIRONMENTAL DEGRADATION.

IMPLEMENTING ACTIONS:

- Encourage the state to refer to the district coastal management program when managing and regulating resources in the CBJ.
- Communicate local concerns to the U.S. Forest Service regarding that agency's policies, in regard to timber management and mineral extraction.
- Establish a review process of state permit activities which affect land in the CBJ.
- Complete and implement a sand and gravel extraction plan, based on projected needs for these resource, development patterns, and sound management and environmental protection practices.
- Formulate management plans for resource-related activities on CBJ selected lands.

POLICY 34: WATERFRONT COMMERCIAL/INDUSTRIAL DEVELOPMENT

Due to the CBJ's dependence upon waterborne transportation and commerce, careful development of waterfront areas for commercial/industrial uses is critical to the area's continued economic vitality. The CBJ should identify and reserve waterfront areas which are appropriate for such facilities, based on their physical suitability and access to transportation modes on land and water. Measures to protect important wildlife habitats and other sensitive coastal resources also should be undertaken.

34 IT IS THE POLICY OF THE CBJ TO DESIGNATE AND RESERVE WATERFRONT LAND WITH ADEQUATE SERVICES AND IN APPROPRIATE LOCATIONS FOR WATER-DEPENDENT OR RELATED COMMERCIAL/INDUSTRIAL ACTIVITIES WHILE PROTECTING IMPORTANT WILDLIFE AND OTHER COASTAL RESOURCES.

IMPLEMENTING ACTIONS:

- Initiate a feasibility study of marine transportation/port facilities. Based on findings, designate land suitable for such development and provide public infrastructure to support such development. See Policy 13: NEW PORT FACILITIES, page II-29, and Policy 39: REGIONAL TRANSPORTATION SYSTEM, Page VI-3.
- Identify specific land and infrastructure needs suitable for development of public port facilities.

- Revise the land use plan map and zoning code to reflect recommendations of the port feasibility study.
- Zone waterfront land for water-dependent and related uses in addition to a new public port facility.
- Conduct detailed planning for north Douglas, downtown waterfront, Auke Bay, and Echo Cove as Areas Meriting Special Attention. Analyze waterfront uses for recreational, commercial/industrial, and mixed use development.
- Within the capital improvements program (CIP), identify special infrastructure needs for port and water-related development.
- Undertake an economic, financial, and environmental analysis of the proposed relocation of public docks away from the downtown area.

POLICY 35: DOWNTOWN MIXED USE DEVELOPMENT

Downtown Juneau is the historical, government, employment, tourist, and cultural center of the CBJ as well as a residential neighborhood and commercial area. A strong downtown commercial area is critical to the CBJ's social and economic vitality.

35 IT IS THE POLICY OF THE CBJ TO PROVIDE FOR HIGH DENSITY DEVELOPMENT IN THE DOWNTOWN AREA WHICH INTEGRATES RESIDENTIAL, RETAIL, AND OFFICE USES.

IMPLEMENTING ACTIONS:

- Establish a category on the land use plan and zoning maps which allows high density residential and retail and office uses as mixed use developments. See section V.
- Revise the zoning code to include performance standards for the mixed use zone which cover height, floor-area-ratio, parking, and other design standards.
- Require review and approval of building design in the mixed use zone by the Planning Commission.

OPEN SPACE, RECREATION, PARKS, AND HISTORIC RESOURCES

These policies are designed to:

- Guide CBJ decisions regarding the designation, acquisition, and management of land for parks.
- Direct the orderly development of facilities for recreational purposes.
- Delineate location and management programs for public open space and outdoor recreational use.
- Support land acquisition where necessary to attain recreational and environmental objectives.

The intent of the following policies is to provide public open space in the CBJ for expressed recreational, aesthetic, and environmental purposes. These policies relate to a large extent to the issues and findings of two documents: the Comprehensive Parks and Recreation Plan (1977) and the Juneau Area Recreation Plan (1982).

The latter is the result of a cooperative effort between the CBJ and state and federal agencies. Based on extensive surveys and other analyses, the 1982 plan projects demand for recreational land and recommends actions by all relevant levels of government.

SUMMARY OF FINDINGS

- Recommendations of the more recent Juneau Area Recreational Plan which relate specifically to the CBJ include:
 - ° Designation of appropriate municipal selected lands for recreation, including Lynn Canal beaches such as Sunshine and Bridget Coves;
 - ° Development of a Mendenhall Valley indoor recreation facility;
 - ° Acquisition of easements on the west bank of the Mendenhall River;
 - ° Cooperative agreements with state and federal government for management of U.S. Forest Service land and state tidelands.
- There are 365 acres of developed park land in the CBJ. According to national standards, there is an adequate supply of neighborhood parks, but an insufficient amount of community park land. Major areas, including the Mendenhall Valley and Lemon Creek, lack adequate parks.

- Recreational programs are in great demand in Juneau; however, the number of facilities to support these programs is insufficient.
- Planning underway by the CBJ Parks and Recreation Department should be coordinated with the CBJ School District.
- There is an immediate need to reserve, designate, and maintain public access to beaches and shoreline areas. This is especially important, given the anticipated transfer of large areas of public lands to private ownership.
- Streamside development has not been adequately regulated, causing water degradation, flood danger, and loss of opportunities to preserve greenbelt areas.
- Valuable habitat areas within the CBJ require retention of vegetation and water resources.
- Inadequately regulated development degrades scenic resources.
- The quality of residential developments is enhanced by standards and policies to preserve open space.
- Demand for outdoor recreational opportunities is related to tourism and residential growth and demand. The population of Juneau has increased 44% between 1970 and 1980. Tourism is increasing at an estimated rate of 10% to 15% annually.

POLICY 36: PARKS AND RECREATION

Although the CBJ contains a wide variety of outdoor recreational resources, more park and recreational facilities should be provided within the urban area.

36

IT IS THE POLICY OF THE CBJ TO ACQUIRE AND DEVELOP SUFFICIENT LOCAL PARKS AND RECREATIONAL FACILITIES IN LOCATIONS CONVENIENT TO ALL AREAS OF THE CBJ. PRIORITY PLACES FOR NEW FACILITIES ARE CURRENTLY DEVELOPED AREAS WHICH LACK ADEQUATE PARKS AND RAPIDLY DEVELOPING AREAS

IMPLEMENTING ACTIONS:

- Estimate the park and recreation facilities needs of the CBJ using recognized national standards of 2.5 acres of community parks and 2.5 acres of neighborhood parks per 1,000 population.

- Use the capital improvements plan to prepare an orderly program to acquire and develop parks and recreation facilities.
- Collaborate with the school district to plan for joint use of neighborhood parks by students and general public.
- Include neighborhood parks on publicly owned land as an integral component of new growth areas. Require parks on privately owned land, as appropriate.
- Cooperate with the State of Alaska and the U.S. Forest Service to encourage the development of recreational and open space facilities and areas.

POLICY 37: OPEN SPACE

Open space is an essential component of Juneau's community form and identity. It should be maintained and enhanced, especially in relation to future development. Shoreline areas are a major coastal resource which also function as valuable natural recreational resources. Most are publicly owned.

37 IT IS THE POLICY OF THE CBJ TO PRESERVE AS PUBLIC OPEN SPACE PUBLICLY OWNED LANDS AND SHORELINE AREAS WHICH POSSESS RECREATIONAL, SCENIC, WILDLIFE, AND OTHER ENVIRONMENTAL QUALITIES OR ARE SUBJECT TO NATURAL HAZARDS.

IMPLEMENTING ACTIONS:

- Designate areas and sites recommended in the Juneau Area Recreation Plan for permanent public access and use. Develop legal descriptions and revise the zoning map accordingly.
- Classify and manage all municipal selected lands designated for public open space and access.
- Designate as public open space all state tidelands not adjacent to land designated for water-dependent and related uses.
- Acquire or trade land as necessary to protect the public from natural hazards and preserve sensitive natural resources.
- As part of approval of the Juneau district coastal management program, encourage relevant state agencies to adopt open space management policies for state land and tidelands

indicated in the Juneau Area Recreation Plan. Initiate cooperative management agreements proposed in the plan.

- Utilize the regulatory process for sensitive areas to review development proposals involving streamside areas.
- Develop management plans for anadromous streams for adoption by Alaska Department of Fish and Game (ADF&G) as part of the Juneau district coastal management program.
- Where regulatory actions are inappropriate, acquire easements for privately owned streamside lands and other areas indicated in the Juneau Area Recreation Plan.
- Review and revise subdivision and planned development ordinances to strengthen open space requirements in residential development.
- Revise the zoning ordinance to designate intertidal areas separately from adjacent uplands; designate intertidal areas for public open space unless needed for other water-dependent and related uses.
- Establish special approval procedures in zoning ordinance for water-dependent and related uses (e.g. boat docks) in open space areas on the shoreline.

POLICY 38: HISTORIC RESOURCES

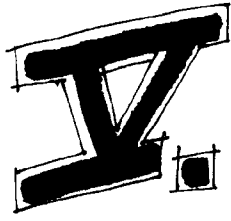
The CBJ possesses historic and archeological resources from native, Russian, and early American cultures which should be protected.

38

IT IS THE POLICY OF THE CBJ TO IDENTIFY AND PROTECT HISTORIC AND ARCHEOLOGICAL RESOURCES.

IMPLEMENTING ACTIONS:

- Complete the inventory of historic resources and evaluate historical significance and relative value of each resource.
- Identify appropriate regulatory measures to protect identified historic resources. These may include special review of proposed changes, development standards, tax concessions and other measures.



LAND USE PLAN MAP

V. LAND USE PLAN MAP

The land use plan maps (Figures V-1A, V-1B, and V-2) display the proposed land uses for the CBJ from 1982 through the year 1997. They translate the policies in Section II, Growth and Development; Section III, Natural Resources and Hazards; and Section VI Transportation/Public Facilities and Services into specific land uses for residential, commercial, industrial, open space, and institutional/public use.

The land uses shown are expressed in a range of development intensities. When the zoning ordinance is revised to be consistent with the land use plan map, decisions on more specific zoning categories will be required. For example, a "Low Density Residential" designation describes residential development whose minimum lot sizes range from 5,000 to 12,000 square feet.

For planning purposes, the study area has been divided into subareas as shown in Figure V-4 and discussed in this section starting on page V-13. Current land use patterns within each subarea are discussed in Volume II, Section VIII. For clarity, larger inset maps (Figures V-5 through V-8) repeat the land use designations for densely developed portions of Auke Bay/West Mendenhall Valley/Mendenhall Peninsula; East Mendenhall Valley/Airport; Lemon Creek; and Juneau/West Juneau/Douglas subareas.

The methodology used to prepare the land use plan maps, the criteria by which the various land uses were designated, and definitions of the land use categories are discussed in the following sections. The land use designations within each subarea and a summary of the areas chosen as Areas Meriting Special Attention follow.

METHODOLOGY AND CRITERIA

The land use plan map was prepared after analyzing each subarea (Figure V-4) in terms of its relationship to the community form policies, existing development patterns, suitability for additional development, and other characteristics. The steps taken to prepare the land use plan map are discussed below.

1. For each subarea, the overall intensity of future development was determined, based on the subarea's designation on the community form map as either urban, rural, or new growth (Figure II-2). For example, a key determinant for the use of land in the East Mendenhall Valley is its designation for urban development.
2. Vacant and potentially buildable land was located in each subarea, and physical development constraints, including sensitive areas identified.

3. Existing development patterns were analyzed. In most cases, existing patterns were reinforced with a compatible designation on the plan map.
4. Most publicly-owned land within sensitive areas was designated for very low density development or open space, in accordance with the Natural Resource and Hazards policies described in section III. Additional publicly owned areas noted in the Juneau Area Recreation Plan also were designated open space.
5. Remaining vacant developable land was designated according to the criteria discussed below for intensities of residential, commercial, industrial, and public/institutional land use.
6. Designations of residential land consider the level of existing or planned urban services, the pattern of existing platting, and compatibility with adjacent land uses. A high priority was given to the maintenance of existing low density neighborhoods within the urban service area. Medium density residential uses were designated in areas which are unplatted, have convenient access and relatively central locations and/or are currently developed at medium densities.
7. Commercial uses were generally designated in or adjacent to existing commercial areas, if the latter are accessible to major population centers. Water-related and water-dependent commercial uses were designated for shoreline areas characterized by adequate services and marine access.
8. Industrial uses were designated according to the type of use. Existing light industrial areas were designated to maintain that use. Waterfront areas were designated for water-related and water-dependent development, mixed with compatible commercial uses. North Douglas is designated as a new growth area because of its suitability for marine transport and related industrial facilities.
9. The public/institutional designations reflect existing uses; downtown they allow for expansion and redesign of the state capital complex.
10. The total amount of land designated for residential, commercial, and industrial use in all subareas was calculated and compared to the previously determined land requirements (Tables IV-1 through IV-3). The preliminary maps were then revised to correspond to these requirements.
11. The need for additional public facilities (schools, parks, roads, streets, and others) were calculated. Locations of proposed schools were shown where sites were selected by the CBJ. Additional school and park sites should be

identified prior to adoption of the plan. The location of small boat harbors will be indicated when further study is completed. Planned and potential roadway corridors also were indicated on the land use plan maps.

12. The revised land use map designations for the study and focus areas were summarized on base maps and on inset maps where necessary to show details.

DEFINITIONS OF LAND USE CATEGORIES

The following land use categories are designated on the land use plan maps.

Natural Resource. Land to be used for the conservation and development of natural resources.

Recreation/Resource. Land under federal and state management for a range of resources (e.g. timber and minerals), and wildlife and recreation uses, including recreation cabins.

Rural Conservation. Rural land to be managed primarily to conserve natural resources on which minimal residential development may occur at a maximum density of one unit per 20 acres.

Open Space. Land in public ownership or subject to publicly held easements or dedications; to be permanently retained as open space and managed for recreational and scenic values.

Residential. Land to be used for dwelling units. (Table V-1).

Rural Residential. Dispersed, very low density development, not provided with municipal sewer or water. Densities are intended to permit one dwelling unit per two acres, but larger lot sizes may be appropriate, based on existing platting and capability of the land to accommodate on-site septic systems and wells.

Low Density Residential. Urban/suburban residential land for detached single-family units, duplex and zero lot line units at densities under seven units/acre; may include manufactured housing.

Medium Density Residential. Urban/suburban residential land for multi-family dwelling units at densities ranging from 7 to 20 units per acre; may include subdivisions or parks of manufactured housing.

Downtown Mixed Use (Including High Density Residential)
Urban residential for multi-family dwelling units at densities of 20 to 60 units per acre; may include retail/office.

Table V-1

RESIDENTIAL LAND USE DESIGNATIONS

<u>Designation</u>	<u>Maximum Units Per Acre</u>	<u>Assumed Average Units Per Acre</u>
Rural residential	0.5	0.33
Low density residential	7	4
Medium density residential	20	10
Downtown Mixed Use/ High density residential	60	30

Industrial/Commercial. Land for industrial and/or commercial uses.

Industrial. Land to be developed for general industrial uses such as manufacturing, or light industrial, i.e. warehousing.

General Commercial. Land for retail uses, including neighborhood retail and community commercial, i.e. shopping centers; mixed retail/residential/office, especially in downtown Juneau and Douglas; and office, including state government.

Downtown Mixed Use. Land in the downtown area for retail or office commercial and/or high density residential uses; these could be combined within a single building as separate uses.

Waterfront Commercial/Industrial. Land to be used primarily for water-dependent and water-related commercial/industrial uses, and in special cases, for water-related mixed uses.

Institutional and Public Use. Land for major public institutional uses, e.g. the University of Alaska, Juneau; and the state capital

area; and for schools and parks. Miscellaneous public facilities such as fire stations, treatment plants, etc. occur within other plan map designations.

Potential New Growth Areas. Sites in rural areas suitable and available for future urban/suburban development when specially approved by the CBJ in accord with the procedures and criteria of Policy 6, NEW GROWTH AREAS.

Transportation Corridors. Land for major public roads and streets, classified as follows:

- Arterial. Street intended to carry large volumes of traffic at steady speeds with minimum interruptions to traffic flow.
- Collector. Street which forms the boundary of major blocks of land and is intended primarily for inter-neighborhood traffic.
- Local. Street intended primarily for access to abutting properties and not for through traffic.

These are designated as "planned" -- necessary to support the indicated development pattern, or "potential," -- necessary only if certain new growth areas or CBJ selected lands are developed.

Proposed Public Facility Sites.* Sites for future small boat harbors, schools, and parks.

Sensitive Areas. This designation is an overlay, and indicates procedures rather than specific uses. Sensitive areas are discussed in Section III, Natural Resources and Hazards. Their locations are shown in Figures V-3A, V-3B1, and V-3B2. Types of Sensitive Areas are as follows:

SA-1 Wildlife Habitat. Deer wintering habitat and eagle nesting areas.

SA-2 Stream Corridor and Lake Shorelines. Borders of lakes and streams.

SA-3 Wetlands and Intertidal Areas. Areas of fresh and salt-water marshes; intertidal flats.

* Location of small boat harbors and additional sites for needed schools and parks will be determined prior to plan adoption.

SA-4 Gravel Resources. Areas with known gravel resources.

SA-5 Landslide/Avalanche Hazards. Areas prone to high or moderate landslide/avalanche hazards.

SA-6 Floodplain. Areas within the 100-year or coastal floodplain.

Figure V-1A

STUDY AREA - North

**PROPOSED
LAND USE**

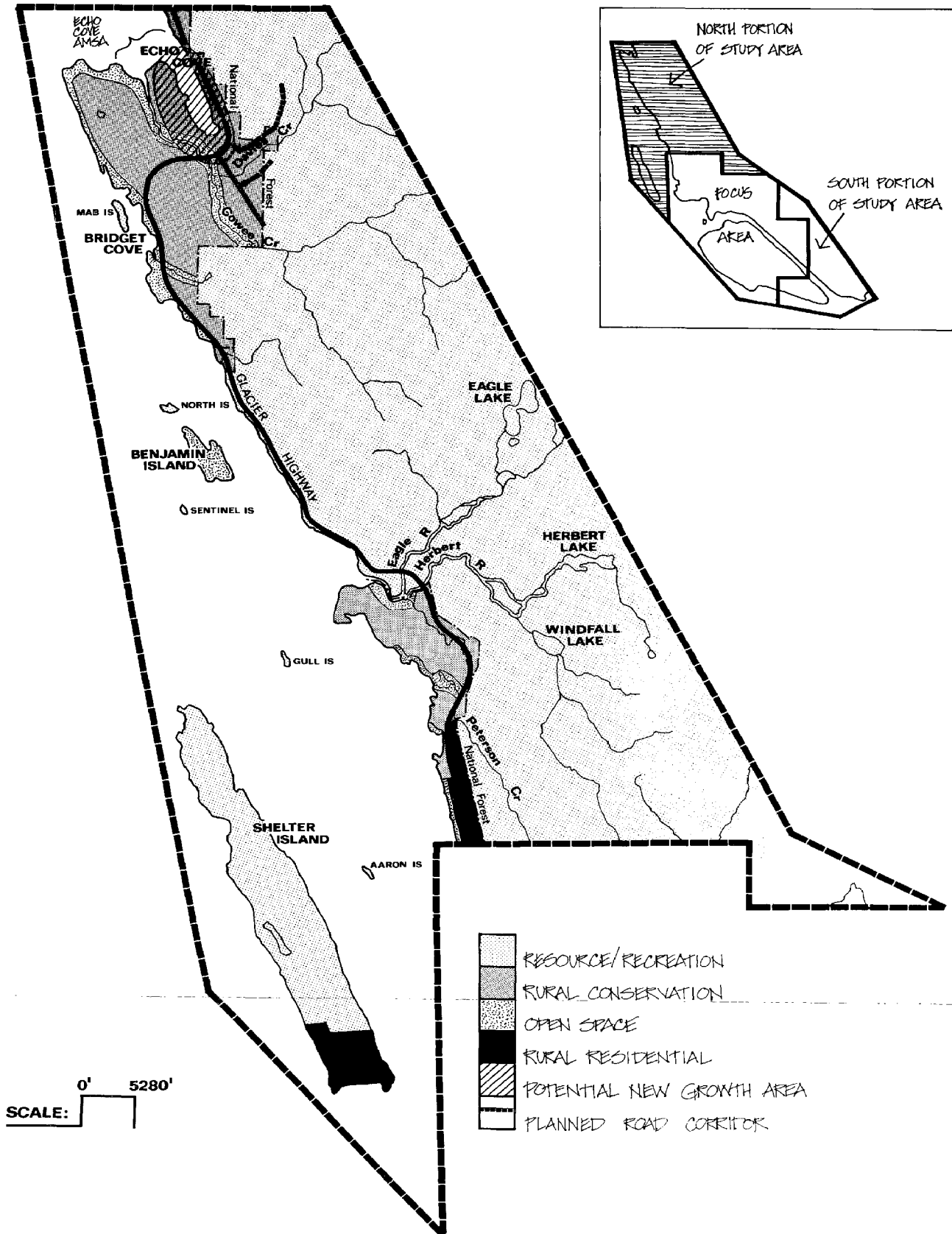


Figure V-1B

STUDY AREA - South PROPOSED LAND USE

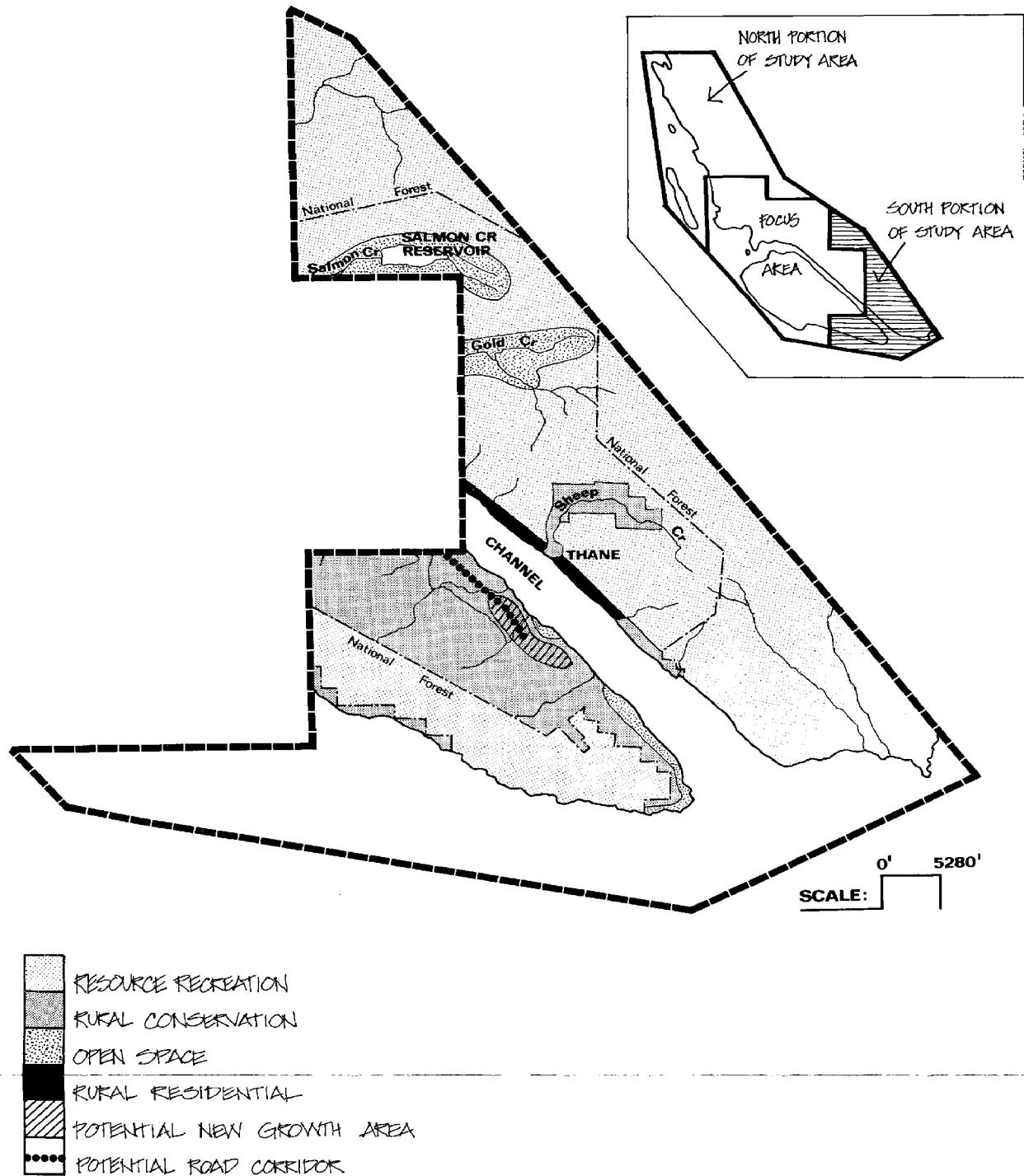


Figure V-2

LAND USE PLAN MAP - FOCUS AREA

NOTE: In this draft plan, the focus area land use plan map is published in oversize form and included in the pocket at the end of this volume.

Figure V-3A

LOCATION OF SENSITIVE AREAS - FOCUS AREA

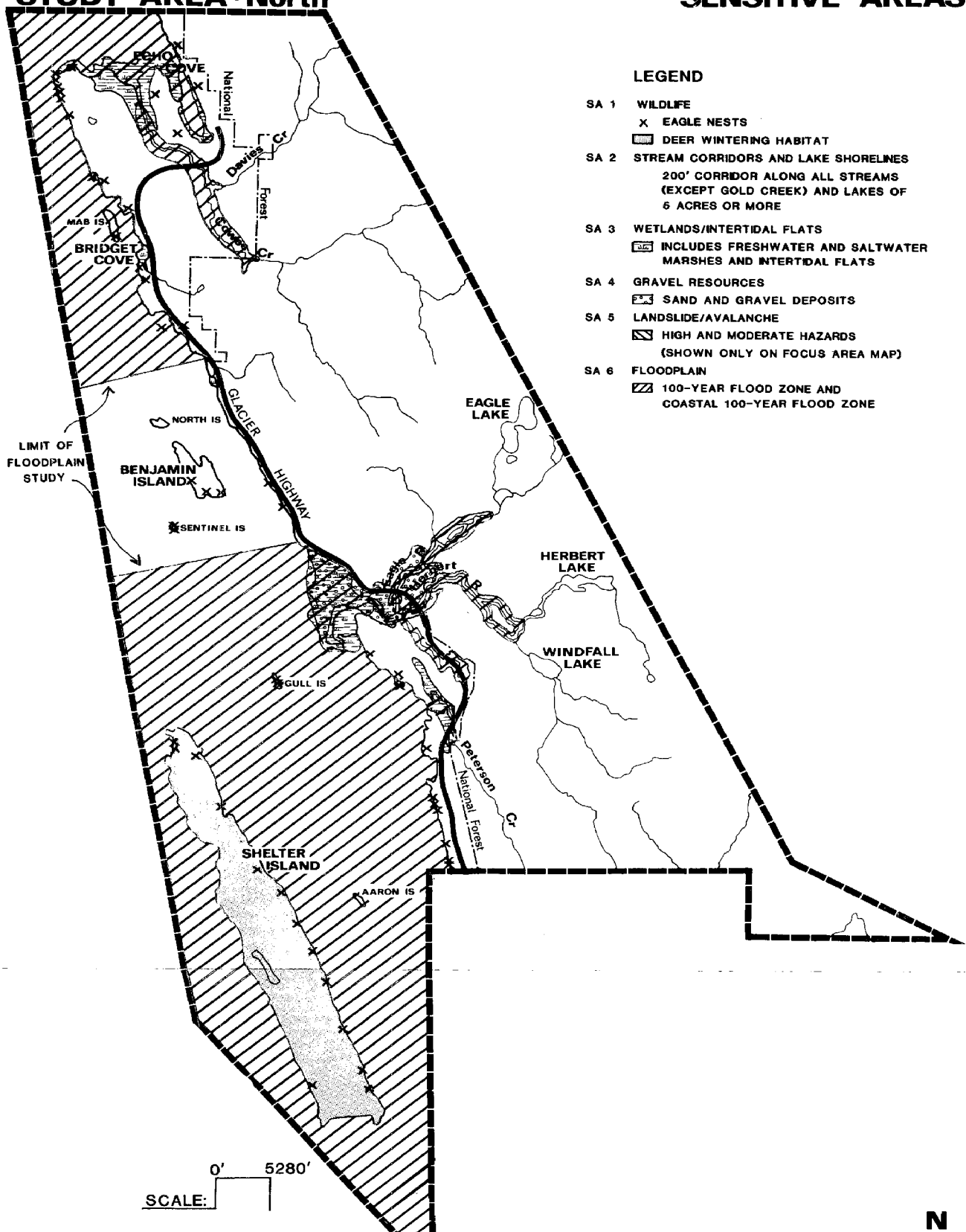
NOTE: In this draft plan, the sensitive area map for the focus area is published in oversize form and included in the pocket at the end of this volume.

STUDY AREA - North

SENSITIVE AREAS

LEGEND

- SA 1 WILDLIFE
 - X EAGLE NESTS
 - DEER WINTERING HABITAT
- SA 2 STREAM CORRIDORS AND LAKE SHORELINES
 - 200' CORRIDOR ALONG ALL STREAMS (EXCEPT GOLD CREEK) AND LAKES OF 5 ACRES OR MORE
- SA 3 WETLANDS/INTERTIDAL FLATS
 - INCLUDES FRESHWATER AND SALTWATER MARSHES AND INTERTIDAL FLATS
- SA 4 GRAVEL RESOURCES
 - SAND AND GRAVEL DEPOSITS
- SA 5 LANDSLIDE/AVALANCHE
 - HIGH AND MODERATE HAZARDS (SHOWN ONLY ON FOCUS AREA MAP)
- SA 6 FLOODPLAIN
 - 100-YEAR FLOOD ZONE AND COASTAL 100-YEAR FLOOD ZONE



0' 5280'
SCALE:

COMPREHENSIVE PLAN - CITY & BOROUGH OF JUNEAU, ALASKA

COGAN/SHAPIRO

Consultants in Planning • Public Affairs • Environmental Science

Juneau, Portland, Seattle

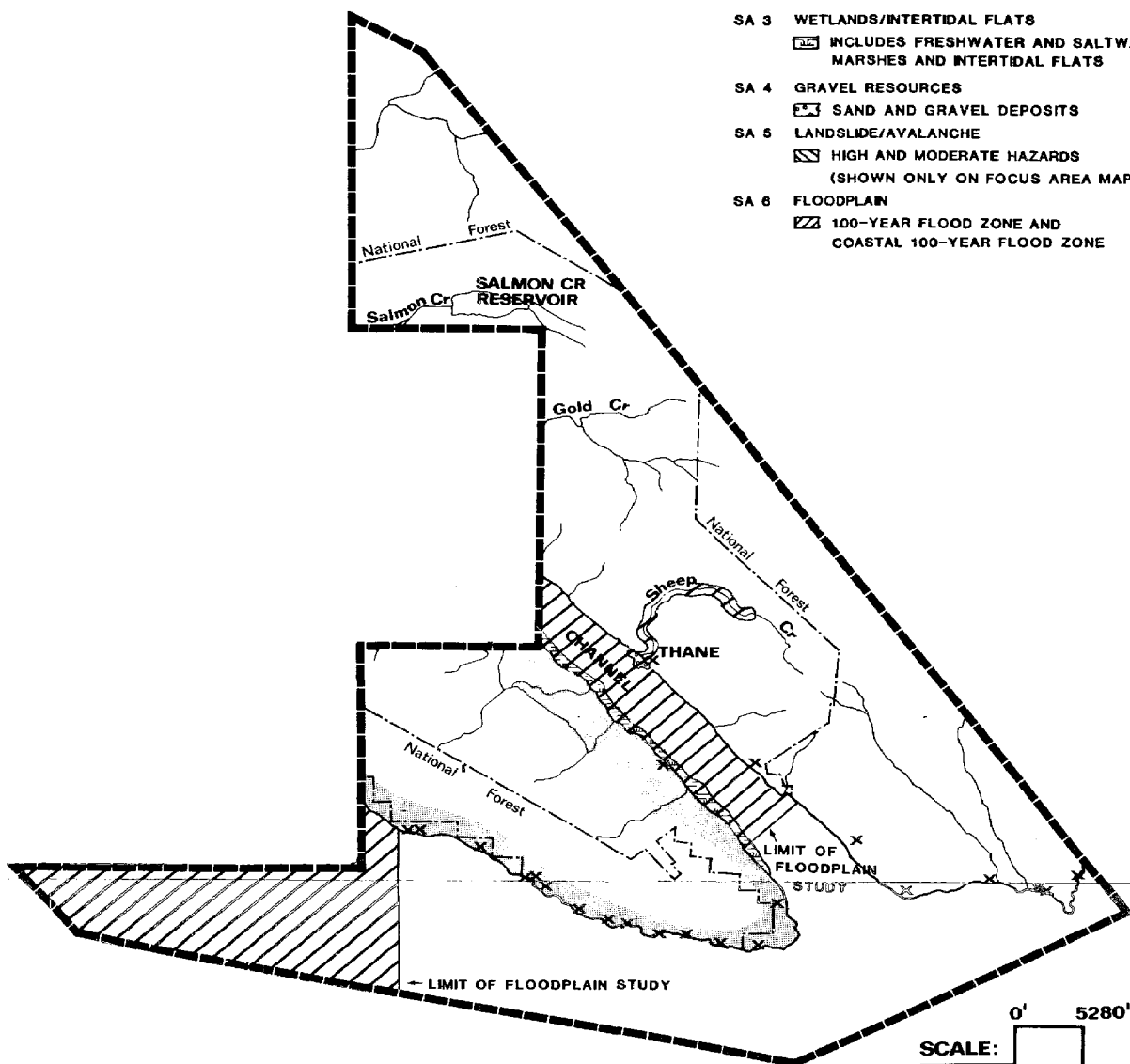
FIGURE V-3B1

STUDY AREA - South

SENSITIVE AREAS

LEGEND

- SA 1 WILDLIFE
 - X EAGLE NESTS
 - DEER WINTERING HABITAT
- SA 2 STREAM CORRIDORS AND LAKE SHORELINES
 - 200' CORRIDOR ALONG ALL STREAMS (EXCEPT GOLD CREEK) AND LAKES OF 5 ACRES OR MORE
- SA 3 WETLANDS/INTERTIDAL FLATS
 - ▨ INCLUDES FRESHWATER AND SALTWATER MARSHES AND INTERTIDAL FLATS
- SA 4 GRAVEL RESOURCES
 - ▨ SAND AND GRAVEL DEPOSITS
- SA 5 LANDSLIDE/AVALANCHE
 - ▨ HIGH AND MODERATE HAZARDS (SHOWN ONLY ON FOCUS AREA MAP)
- SA 6 FLOODPLAIN
 - ▨ 100-YEAR FLOOD ZONE AND COASTAL 100-YEAR FLOOD ZONE



COMPREHENSIVE PLAN - CITY & BOROUGH OF JUNEAU, ALASKA

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FIGURE V-3B2

SUBAREAS

This section describes the application of land use plan map methodology to each subarea. It lists the particular factors or guidelines which influenced land use designations and discusses the issues which will require special attention in future planning.

Some subareas indicated in Figure V-4 also contain Areas Meriting Special Attention (AMSA) -- those for which more specific future study is necessary. The location of each AMSA is shown on the land use plan maps for the study and focus areas.

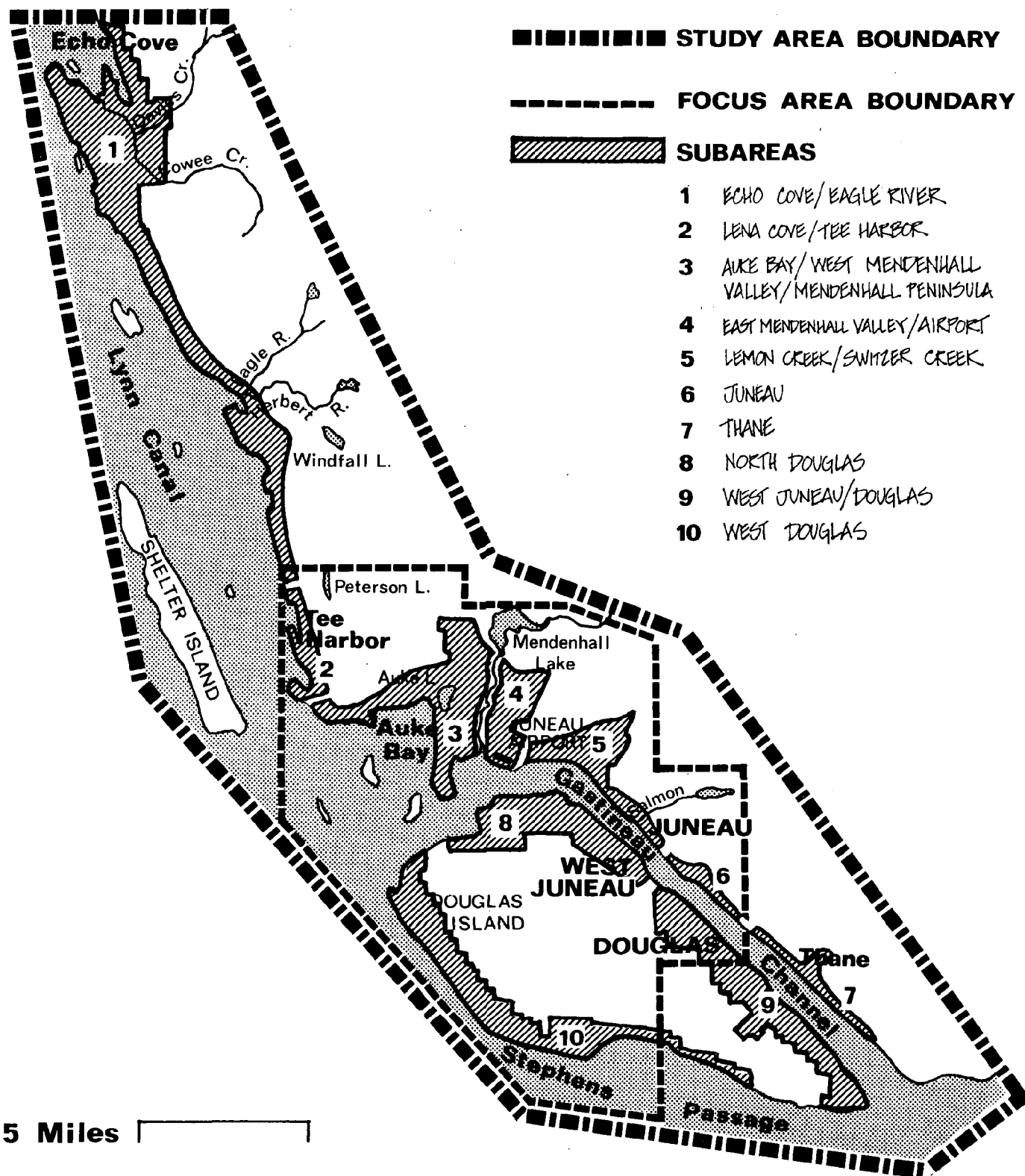


Figure V-4 SUBAREA BOUNDARIES

SUBAREA 1: ECHO COVE/EAGLE RIVER

LOCATION: Figure V-1A, Study Area Map

AMSA: Echo Cove

COMMUNITY FORM: Rural, with potential New Growth Area

SENSITIVE AREAS:

Type	Location (Figure V-3B1)
SA-1 Wildlife (Eagles)	Echo Cove; Lynn Canal shorelines
SA-2 Stream and Lake-shore Corridors	Cowee and Davies Creeks; Eagle River, Herbert River, Peterson Creek, Salt Lake, others
SA-4 Gravel Resource	Eagle and Herbert River corridors; delta/estuary area
SA-3 Wetlands/Tidelands	Eagle/Herbert River estuary, Echo Cove, Bridget Cove
SA-6 Flooding	Cowee and Davies Creeks, Eagle River, Herbert River, Peterson Creek

LAND USE PLAN MAP GUIDELINES:

- Preserve valuable, publicly owned recreation lands and wildlife habitat, including Lynn Canal shoreline areas, as public open space.
- Provide opportunities for new growth area development, including a mixture of residential and water-related uses in Echo Cove.
- Limit density of rural development north of Peterson Creek in response to the presence of sensitive areas; allow higher rural densities to the south.

PROPOSED PUBLIC FACILITIES: Except for development of a new growth area at Echo Cove, the level of development requires minimal additional public facilities and services. Planned logging activities of the U.S. Forest Service in the Cowee-Davies Management Area will require construction of timber access roads along Cowee and Davies Creeks and extension of Glacier Highway north to Sawmill Creek.

SUBAREA 2: LENA COVE/TEE HARBOR

LOCATION: Figure V-2, Focus Area Map

AMSA: None

COMMUNITY FORM: Rural

SENSITIVE AREAS:

<u>Type</u>	<u>Location (Figure V-3B1)</u>
SA-1 Wildlife (Eagles)	Lena Cove, Tee Harbor
SA-2 Stream Corridors	Lena Creek, Tee Creek
SA-4 Gravel Resource	Adjacent to road

LAND USE PLAN MAP GUIDELINES:

- Preserve shoreline areas in public ownership as public open space.
- Provide for continuation of rural residential development.

PROPOSED PUBLIC FACILITIES: The rural intensity of development requires little investment in additional public facilities. The Juneau Small Boat Harbors Study, may recommend proposed small boat facilities in this subarea.

SUBAREA 3: AUKE BAY/WEST MENDENHALL VALLEY/MENDENHALL PENINSULA

LOCATION: Figure V-2, Focus Area Map; Figure V-5, Auke Bay Inset Map.

AMSA: Auke Bay

COMMUNITY FORM: Predominantly rural with urban designations for Auke Bay and northern Mendenhall Peninsula.

SENSITIVE AREAS:

Type	Location (Figure V-3A)
SA-1 Wildlife (Eagles)	Mendenhall Peninsula, Auke Bay
SA-2 Stream and Lake Corridors	Mendenhall River, Montana Creek, Auke Creek, Lake Creek, Auke Lake
SA-3 Wetlands	West Mendenhall Valley, Mendenhall Peninsula
SA-4 Gravel Resource	Montana Creek basin, Mendenhall River corridor, north side of Auke Lake
SA-6 Flooding	West Mendenhall Valley, Mendenhall Peninsula

LAND USE PLAN MAP GUIDELINES:

- Provide for continued water-dependent and related development in Auke Bay and the vicinity of the Ferry Terminal.
- Preserve valuable tidelands, shorelines, and stream corridors, as public open space.
- Limit density of development in Mendenhall Peninsula in response to the presence of wetlands and flood hazards and proximity to flight paths into Juneau International Airport.
- Provide for additional low and medium density residential development on CBJ selected lands with access to existing or planned urban services.
- Limit density of development in West Mendenhall Valley to maintain wetlands, avoid flood hazards and provide open space. Road corridors delineated in the Mendenhall Valley Transportation Plan are not necessary to support the proposed level of development. See section XI, Technical Appendix.

- Provide for expansion of the UAJ campus, including dormitories.
- Allow for increased commercial development in the vicinity of the intersection of Glacier Highway and the Back Loop Road.

PROPOSED PUBLIC FACILITIES:

The urban scale development proposed for portions of this subarea will require significant investment in public facilities and services, including:

<u>Type</u>	<u>Location</u>
<u>Utilities</u>	
Construction of municipal water system	Portion of subarea within the urban service area
Connection of sewer system to Mendenhall Valley system when Auke Bay system capacity is reached	Portion of subarea within the urban service area
<u>Roads*</u>	
Auke Bay collector	See inset map, Figure V-5
<u>Schools</u>	
Additional elementary school	Location not yet determined.**

* Additional transportation needs are discussed in Section VI, Transportation/Public Facilities and Services under Policy 42.

** Sites for new school facilities will be determined prior to plan adoption.

Figure V-5

INSET A - AUKE BAY/WEST MENDENHALL VALLEY/MENDENHALL PENINSULA

NOTE: In this draft plan, all land use plan maps are published in oversize form and included in the pocket at the end of this volume.

SUBAREA 4: EAST MENDENHALL VALLEY/AIRPORT

LOCATION: Figure V-2, Focus Area Map; Figure V-6, East Mendenhall Valley Inset Map.

AMSA: None

COMMUNITY FORM: Urban

SENSITIVE AREAS:

<u>Type</u>	<u>Location (Figure V-3A)</u>
SA-1 Wildlife (Eagles)	Airport vicinity
SA-2 Stream Corridors	Mendenhall River, Duck Creek, Jordan Creek, Montana Creek, others
SA-3 Wetlands/Tidelands	Mendenhall Flats - Airport vicinity
SA-4 Gravel Resource	Mendenhall River corridor, upper part of valley
SA-5 Landslide/Avalanche	Eastern portion of east valley
SA-6 Flooding	Mendenhall River, Jordan Creek, Coast

LAND USE PLAN MAP GUIDELINES:

- Maintain density of existing single family residential neighborhoods.
- Provide opportunities for medium density development in unplatted areas with adequate access, adjacent to existing multi-family development or where land use conflicts can be minimized.
- Provide for increased community commercial development close to existing commercial areas in lower valley.
- Limit airport expansion to area designated in Airport Master Plan; maintain adjacent wetlands and tidelands for public open space.
- Utilize CBJ selected lands for residential development, recognizing constraints of sensitive areas.
- Allow for continued industrial development in existing industrial areas.

PROPOSED PUBLIC FACILITIES: The amount and density of residential, commercial, and industrial development requires a significant investment in public facilities and services, including:

<u>Type</u>	<u>Location or Service Area</u>
<u>Utilities</u>	
Construction of municipal water system	Portion of subarea within the urban service area
Expansion of sewage treatment capacity	Portion of subarea within the urban service area
<u>Roads*</u>	
Jordan Creek collector	East of Loop Road
Riverside collector	West of Loop Road
<u>Schools</u>	
Junior high site on map	Within subarea (immediate need)
<u>Parks</u>	
Community park	Within subarea (immediate need)**

* Additional transportation needs are discussed in section VI, Transportation/Public Facilities and Services under Policy 42.

** Sites for park facilities will be determined prior to plan adoption.

Figure V-6

INSET B - EAST MENDENHALL VALLEY SUBAREA - LAND USE PLAN MAP

NOTE: In this draft plan, all land use plan maps are published in oversize form and included in the pocket at the end of this volume.

SUBAREA 5: LEMON CREEK/SWITZER CREEK

LOCATION: Figure V-2, Focus Area Map; Figure V-7, Lemon Creek Inset Map

AMSA: None

COMMUNITY FORM: Predominantly urban; rural in upper Lemon Creek Valley

SENSITIVE AREAS:

<u>Type</u>	<u>Location (Figure V-3A)</u>
SA-1 Wildlife (Eagles)	Vanderbilt Hill
SA-2 Stream Corridors	Lemon Creek, Switzer Creek, Salmon Creek
SA-3 Wetlands/Tidelands	Mendenhall Flats, Lower Lemon Creek/Switzer Creek
SA-4 Gravel Resource	Lower Lemon Creek
SA-5 Landslide/Avalanche	Upper Lemon Creek Valley
SA-6 Flooding	Lower Lemon Creek/Switzer Creek

LAND USE PLAN MAP GUIDELINES:

- Provide for additional low and medium density residential development in areas with access to arterials, municipal sewer, and planned water service.
- Restrict residential development in areas affected by sand and gravel extraction.
- Locate major areas of community commercial development near residential areas of the Mendenhall Valley and Juneau, but allow limited commercial development in the Lemon Creek subarea.
- Allow development of wetlands for industrial, commercial, and residential uses between the Old Glacier Highway and Egan Expressway using procedures for sensitive areas.
- Reserve wetlands and tidelands in public ownership for open space.

- Designate area of Bartlett Memorial Hospital for institutional and public uses to accommodate expansion of hospital and related medical facilities.
- Allow for expansion of state office facilities adjacent to existing offices, within the General Commercial designation.

PROPOSED PUBLIC FACILITIES: The urban intensity of development requires the following public facilities and services:

<u>Type</u>	<u>Location</u>
<u>Utilities</u>	
Construction of municipal water system	Portion of subarea within urban service area
Expansion of Mendenhall Valley sewage treatment plant	Portion of subarea within urban service area
<u>Schools</u>	
New school site on map	Inset map, Figure V-7
<u>Parks</u>	
Existing park site on map	Inset map, Figure V-7.
<u>Roads*</u>	
Lemon Creek collector	Inset map, Figure V-7.
Valley collector	Inset map, Figure V-7.

* Additional transportation needs are discussed in section VI, Transportation/Public Facilities and Services, under Policy 42.

Figure V-7

INSET C - LEMON CREEK/SWITZER CREEK SUBAREA - LAND USE PLAN MAP

NOTE: In this draft plan, all land use plan maps are published in oversize form and included in the pocket at the end of this volume.

SUBAREA 6: JUNEAU

LOCATION: Figure V-2, Focus Area Map; Figure V-8, Juneau-Douglas Inset Map

AMSA: Downtown Waterfront

COMMUNITY FORM: Urban

SENSITIVE AREAS:

<u>Type</u>	<u>Location (Figure V-3A)</u>
SA-2 Stream Corridors	Gold Creek (upstream from Cope Park)
SA-3 Wetlands/Tidelands	Gold Creek tidelands
SA-4 Gravel Resource	Small area on upper Gold Creek
SA-5 Landslide/Avalanche	Mt. Juneau, Mt. Roberts, Gold Creek Basin
SA-6 Flooding	Gold Creek

LAND USE PLAN MAP GUIDELINES:

- Provide for orderly expansion of central state government facilities in the vicinity of the state capital and the state office building, as part of a state and CBJ civic center.
- Encourage commercial redevelopment of the central business district; permit housing as a mixed use.
- Maintain existing densities in the single family neighborhoods of Star Hill, the Highlands, and the vicinity of the federal building.
- Reserve downtown waterfront for public access and open space and other water-dependent and water-related uses.
- Provide for redevelopment of downtown residential areas to accommodate higher residential densities, in combination with retail and office uses.
- Limit development in landslide/avalanche hazard areas.

PROPOSED PUBLIC FACILITIES: The Juneau subarea provides a generally high level of municipal services, and sewer and water systems have sufficient capacity to accommodate the proposed additional development. Ongoing improvement programs for roads and streets, pedestrian facilities, and storm drainage will be required. See section VI, Transportation/Public Facilities and Services, for a discussion of additional subarea transportation needs under Policy 42.

Figure V-8

INSET D - DOUGLAS/WEST JUNEAU AND JUNEAU SUBAREAS - LAND USE PLAN MAP

NOTE: In this draft plan, all land use plan maps are published in oversize form and included in the pocket at the end of this volume.

SUBAREA 7: THANE

LOCATION: Figure V-1B, Study Area Map

AMSA: None

COMMUNITY FORM: Rural

SENSITIVE AREAS:

<u>Type</u>	<u>Location (Figure V-3B2)</u>
SA-1 Wildlife (Eagles)	Shoreline areas
SA-2 Stream Corridors	Sheep Creek
SA-4 Gravel Resource	Sheep Creek
SA-5 Flooding	Lower Sheep Creek

LAND USE MAP GUIDELINES:

- Allow for continued rural residential development along existing road corridor.
- Provide for possible resource extraction activities in the Sheep Creek corridor.

PROPOSED PUBLIC FACILITIES: The rural level of development requires little additional investment in public facilities and services. However, gravel extraction in the Sheep Creek area requires construction of an access road.

SUBAREA 8: NORTH DOUGLAS

LOCATION: Figure V-2, Focus Area Map

AMSA: Fish Creek

COMMUNITY FORM: Predominantly rural with New Growth Areas;
urban (southern portion)

SENSITIVE AREAS:

Type	Location (Figure V-3A)
SA-1 Wildlife (Eagles)	Fritz Cove
SA-2 Stream Corridors	Fish Creek, Eagle Creek, others
SA-3 Wetlands/Tidelands	Shoreline between Fritz Cove and Cowee Creek
SA-4 Gravel Resource	Small area on lower Fish Creek
SA-5 Landslide/Avalanche	Hendrickson Creek
SA-6 Flooding	Lower Fish Creek area

LAND USE PLAN MAP GUIDELINES:

- Preserve shoreline and streamside areas as open space in public ownership.
- Provide for low and medium density urban residential development in areas north of Cowee Creek which can be served by extending existing municipal sewer and water systems.
- Allow for rural residential densities along North Douglas highway corridor, and rural conservation densities in upland areas.
- Provide alternative locations for new growth areas:
 - ° East of Fish Creek -- combination of residential, neighborhood commercial, and recreation-related development.
 - ° West of Fish Creek, possibly including Fritz Cove -- combination of residential, recreation, and water-dependent and related commercial and industrial uses. The nature and extent of the latter depends on the feasibility of constructing marine transport facilities at Fritz Cove, as discussed in sections II and VI.

- ° Eagle Crest Ski Area -- for development of additional ski area facilities.
- Prevent development within the Fish Creek Road corridor.
- Locate approximate route of potential new channel crossing from north Douglas to Mendenhall Peninsula. If it is found to be environmentally and economically feasible, the crossing would allow more intense development of the new growth areas on north and west Douglas. Given the need for further study, development of the crossing is not likely for at least five to seven years.

PROPOSED PUBLIC FACILITIES: Development depends upon a number of related public actions not yet determined. Although Fritz Cove may be a suitable location for a small boat harbor, barge docks, and other water-dependent industrial facilities, careful attention needs to be paid to environmental, demographic, economic, social, and engineering factors. Development of the area, however, is unlikely without construction of a second channel crossing because of the travel time to the East Mendenhall Valley commercial and residential areas. The crossing is likely to encourage residential development on CBJ selected lands on both sides of Fish Creek.

Additional public facilities and services required for the proposed level of development include:

<u>Type</u>	<u>Location</u>
<u>Utilities</u>	
Extension of municipal sewer and water system	North of Cowee Creek to edge of proposed USA
<u>Roads*</u>	
"Bench Road"	Focus Area Map, Figure V-2
Channel Crossing	Focus Area Map, Figure V-2
<u>Parks</u>	
Development of new growth areas - includes neighborhood parks.	New Growth Areas

* For additional transportation needs, refer to section VI, Transportation/Public Facilities and Services under Policy 42.

SUBAREA 9: DOUGLAS/WEST JUNEAU

LOCATION: Figure V-1B, Study Area south; Figure V-2, Focus Area Map; Figure V-8, Juneau-Douglas Inset Map.

AMSA: None

COMMUNITY FORM: Predominantly urban; rural, with a potential new growth area south of Douglas

SENSITIVE AREAS:

	<u>Type</u>	<u>Location (Figures V-3A & V-3B2)</u>
SA-1	Wildlife (Deer, Eagles)	South of Douglas
SA-2	Stream Corridors	Cowee Creek, Bear Creek, Lawson Creek, others
SA-3	Wetlands/Tidelands	South of Douglas
SA-4	Gravel Resource	Eagle Creek drainage and delta

LAND USE MAP GUIDELINES:

- Provide for increased medium density residential development in areas with access to arterials and served by municipal sewer and water.
- Provide for water-dependent and water-related commercial/industrial uses within the Douglas Harbor area.
- Limit residential development in areas currently unserved by roads and streets, e.g. south Douglas Island, except in a new growth area.
- Preserve publicly owned undeveloped shoreline areas for public open space.

PROPOSED PUBLIC FACILITIES: The urban level of development proposed for West Juneau and Douglas will require continued investment in public facilities and services, including:

<u>Type</u>	<u>Location</u>
<u>Utilities</u>	
Extension of municipal sewer	Newly developing areas upland of Douglas Highway.
<u>Roads</u>	
Douglas collector	Inset Map, Figure V-8
<u>Schools</u>	
Additional elementary and junior high schools in the future	Locations not yet determined*
<u>Parks</u>	
Parks will be needed to serve residential growth	Locations not yet determined*

*Sites for needed parks and schools will be determined prior to plan adoption.

SUBAREA 10: WEST DOUGLAS

LOCATION: Figure V-2, Focus Area Map

AMSA: Outer Point/Point Hilda

COMMUNITY FORM: Rural with New Growth Areas

SENSITIVE AREAS:

	<u>Type</u>	<u>Location</u>
SA-1	Wildlife (Eagles, Deer)	Entire subarea
SA-2	Stream Corridors	Peterson Creek, Hilda Creek, others
SA-5	Flooding	Lower Peterson Creek

LAND USE MAP GUIDELINES:

- Provide for development of a new growth area with residential and recreational uses which minimizes negative impacts on wildlife habitat.
- Preserve for open space streamside and shoreline areas in public ownership.
- Limit density of rural development outside new growth areas.

PROPOSED PUBLIC FACILITIES: The proposed level of development requires extension of Douglas Highway to support development of a new growth area. Community sewer, water, storm drainage, and other facilities will be provided.

AREAS MERITING SPECIAL ATTENTION

State law* defines an Area Meriting Special Attention (AMSA) to be:

"A delineated geographic area within the coastal area which is sensitive to change and which, because of plans or commitments or because a claim on the resources within the area delineated would preclude subsequent use, warrants special management attention, or which, because of its value to the general public, should be identified for current or future planning, protection or acquisition;"

By designating an area an AMSA the public body agrees to give special attention to its planning and management. Areas which require this effort are characterized by high resource values or natural hazards which are sensitive to development. They are delineated in the statutes as wildlife habitat, natural resources, cultural values, landslide and flood zones, and historic, recreational, scenic, or potential coastal development areas.

Recommendations for management procedures to protect valuable resources and amenities and promote safety are presented in Section III, Natural Resources and Hazards; and Section IV, Land Use.

An AMSA must meet the following criteria:

- Present a combination of special natural resource, scenic, cultural or historic resources, or special development limitations.
- Be subject to development pressures from anticipated or likely growth.

Areas in the CBJ which meet these criteria and are proposed for designation as Areas Meriting Special Attention are Echo Cove, Auke Bay, the Juneau downtown waterfront, the mouth of Fish Creek on north Douglas Island, and the coastline between Outer Point and Point Hilda on west Douglas Island.

Following are summaries of the values and/or constraints, likely development pressures, and management efforts which should be addressed in future AMSA planning efforts.

In previous studies by the CBJ, additional potential AMSAs have been identified. While these areas are not within the purview of this comprehensive plan they may merit further planning. Potential AMSAs are indicated on Figure V-9, and summarized in Table V-2.

* Section 46.40.210, Alaska Coastal Management Act of 1977, as amended.

AMSA: ECHO COVE

LOCATION: Figure V-1A, Study Area North

SUBAREA: #1, Echo Cove/Eagle River

RESOURCE VALUES AND CONSTRAINTS

Echo Cove is a scenic area intensively used for water-related recreation. It also provides habitat for aquatic and terrestrial wildlife.

LIKELY DEVELOPMENT

With the exception of a public access easement which is currently under dispute, the land bordering Echo Cove has been conveyed to the Goldbelt ANCSA corporation. A preliminary study of the site by Goldbelt suggests that a range of residential, commercial and water-dependent and water-related industrial uses may be feasible. Echo Cove also has been suggested as a site for a ferry terminal on the Juneau-to-Haines ferry/road route.

Extension of Glacier Highway along the east shore of the Cove north to Sawmill Creek is planned by the U.S. Forest Service. The road would serve a log transfer facility to be constructed to serve logging activities in the Cowee-Davies Management Area south and east of Echo Cove.

MANAGEMENT DIRECTION

- Allow for appropriate development of Goldbelt lands, using the process for New Growth Areas.
- Maintain public access and use of designated areas.
- Mitigate negative impacts of timber harvesting activities in Cowee-Davies Management Area.
- Evaluate suitability of the area for construction of a marine highway terminal to serve a new Juneau-Haines ferry/road route.

AMSA: AUKE BAY

LOCATION: Figure V-2, Focus Area

SUBAREA: #3, Auke Bay/West Mendenhall Valley/Mendenhall Peninsula

RESOURCE VALUES AND CONSTRAINTS

Auke Bay is a site of heavy recreational boating use, containing one public and two private docks and a boat launching ramp. The bay also is a source of salt water for the research conducted at the National Marine Fisheries Service laboratory. It has high scenic values and provides habitat for aquatic wildlife. Constraints include the limited capacity of the road system and insufficient fresh water supply to accommodate increased development.

LIKELY DEVELOPMENT

Auke Bay is the site of a proposed transient small boat harbor, including a floating breakwater, but development has been halted as a result of litigation. Expansion of two private marinas is anticipated, but any increase in boat capacity will require corresponding upland facilities, especially parking.

The University of Alaska, Juneau is planning to construct student dormitories in the vicinity of the intersection of Glacier Highway and the Back Loop Road.

MANAGEMENT DIRECTION

- Reserve shoreline and tidelands for water-dependent and related uses.
- Evaluate environmental and economic feasibility of expanded small boat harbor facilities.
- Ensure that improvements to public facilities and services are adequate for all proposed development.

AMSA: DOWNTOWN JUNEAU WATERFRONT

LOCATION: Figure V-2, Focus Area Map

SUBAREA: #6, Juneau

RESOURCE VALUES AND CONSTRAINTS:

The downtown waterfront has high scenic values and also provides aquatic habitat in intertidal areas. It presents opportunities for more water-dependent and water-related uses, especially related to tourism.

LIKELY DEVELOPMENT:

The CBJ is planning to fill 24 acres of tidelands at the mouth of Gold Creek. Development alternatives include a range of residential, commercial and public uses. Other development possibilities are a new National Guard dock and a Pioneer Home. Redevelopment of the waterfront industrial area is anticipated by the CBJ as a result of more detailed study of port facility relocation. The feasibility of additional facilities such as cruise ship berths, restaurants and hotels, public parks, and open space will be evaluated.

MANAGEMENT DIRECTION:

- Determine development priorities from among public open space, water-dependent and water-related uses, and water-related mixed uses.
- Integrate development plans for the Gold Creek tidelands with the remainder of the waterfront.

AMSA: FISH CREEK AND OUTER POINT/POINT HILDA

LOCATIONS: Figure V-2, Focus Area Map

SUBAREAS: #8, North Dougals, and #10, West Douglas

RESOURCE VALUES AND CONSTRAINTS:

Both areas are used extensively for water-related recreational activities, have high scenic values, and provide aquatic and terrestrial wildlife habitat. Fish Creek is a valuable fisheries resource and Outer Point/Point Hilda is the home of Sitka deer. In the Fish Creek area, Fritz Cove contains sheltered shoreline areas with the potential for port or small boat harbor development.

LIKELY DEVELOPMENT:

The CBJ and Goldbelt own large tracts of land within the Outer Point/Point Hilda area; the CBJ owns large areas near Fish Creek. The physical suitability of these lands and their proximity to existing development has resulted in significant development pressure. A range of residential and water-related commercial and industrial uses is possible. The CBJ is studying the feasibility of constructing a second channel crossing from the Fish Creek area to the Mendenhall Peninsula.

MANAGEMENT DIRECTION:

- Coordinate state, federal, CBJ, and Goldbelt involvement in development of new growth areas and the channel crossing.
- Provide planning direction and objectives for development of new growth areas.

Table V-2

OTHER POTENTIAL AMSAs OUTSIDE STUDY AREA

<u>Area</u>	<u>Potential Resource/Development Conflict</u>
Berners Bay	Wetlands and habitat value/USFS timber harvesting and log transfer; mining activity
Sweetheart Flats	Wetlands and habitat value/USFS timber harvesting
Taku Inlet	Estuarine and wetland habitat value/USFS timber harvesting

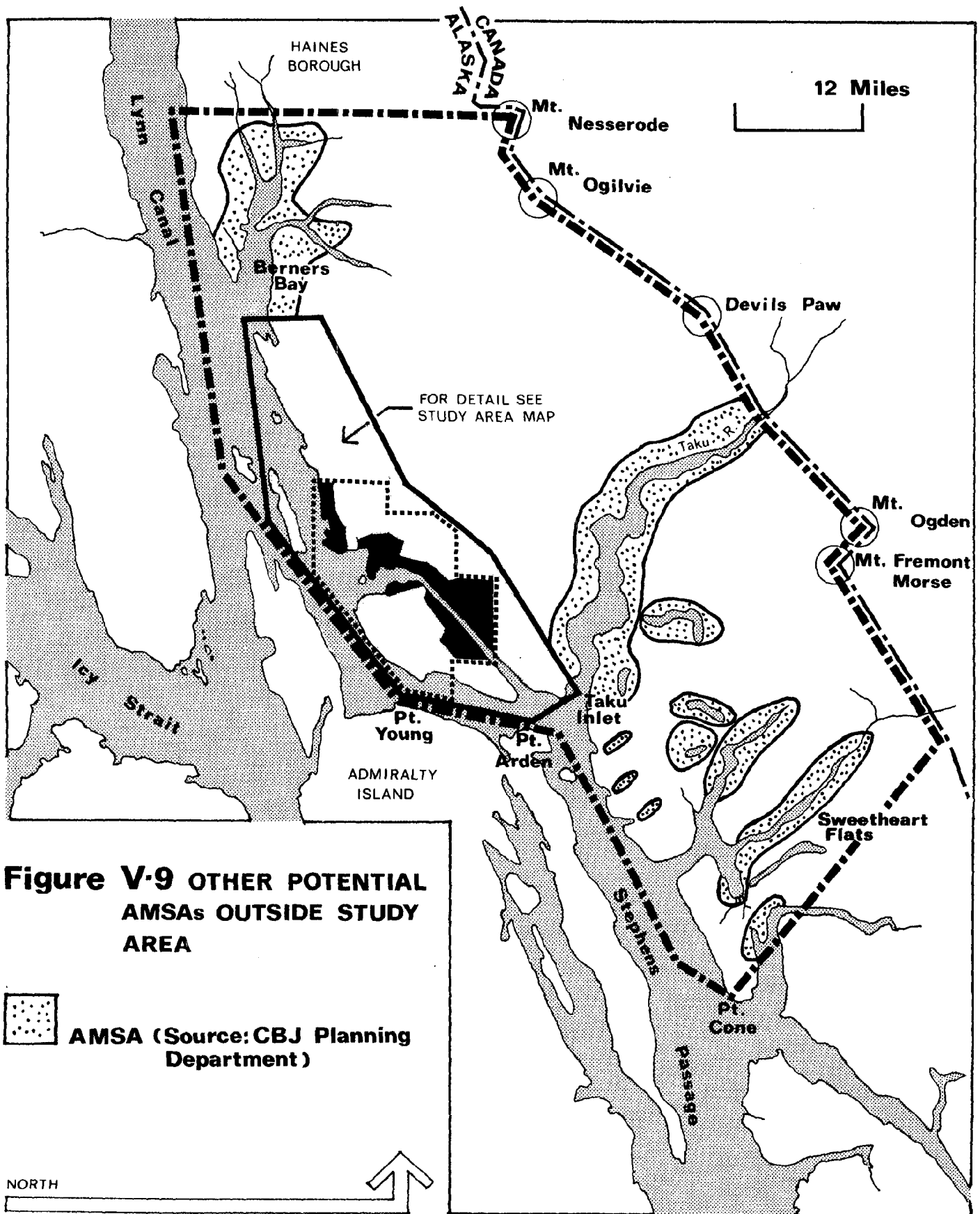


Figure V-9 OTHER POTENTIAL AMSAs OUTSIDE STUDY AREA



AMSA (Source: CBJ Planning Department)

NORTH



VI.

TRANSPORTATION/ PUBLIC FACILITIES AND SERVICES

■ Transportation

■ Public Facilities and Services

VI. TRANSPORTATION/PUBLIC FACILITIES AND SERVICES

TRANSPORTATION

An efficient and balanced urban transportation system facilitates the movement of people and goods to and within the CBJ while conserving energy and reducing air pollution. Timely and coordinated transportation improvements to the current system are necessary to support the growth patterns envisioned in this plan. Findings, policies, and implementing actions follow.

SUMMARY OF FINDINGS

- Due to the lack of a road connection with other regions of the state and Canada, the CBJ depends upon air and marine transportation; the latter facilities also serve the southeast region of Alaska. By the late 70s, waterway transit accounted for nearly 50% of passenger, 98% of freight, and 100% of vehicle traffic to and from Juneau.
- Alaska Airlines is the only major air carrier which serves Juneau.
- In addition to the recently completed access road and the terminal expansion now underway, other modifications to the Juneau International Airport are necessary to increase its service capacity and improve operational safety. These include runway and navigational equipment improvements and additional parking, cargo, and general aviation facilities.
- There is strong local support for increasing ferry service to and from other points in southeastern Alaska, thus expanding Juneau's role as a regional center. With the recent completion of the Auke Bay terminal, the CBJ now is able to accommodate a significant increase in ferry traffic. If hydrofoils become a prevalent transportation mode, additional terminal facilities will be needed.
- In general, the CBJ's other marine transportation facilities are outdated and/or inadequate. Private barge docks in downtown Juneau are too small to accommodate additional demand and cannot be enlarged sufficiently. They also are not conveniently accessible to the Mendenhall Valley, the center of commercial and residential growth in the CBJ. North Douglas Island has been identified as a possible location for new freight facilities, but this is feasible only if a second channel crossing is built. All small boat marinas are functioning at

capacity and there is a widespread shortage of slips. Cruise ship moorages also require improvement and expansion.

- State and federal transportation agencies are responsible for building roads between Juneau and other port communities of the Alaskan panhandle or Canada. Specific highway proposals include:
 - ° Between Juneau and the continental roadway system at either Atlin or Dease Lake, British Columbia, via the Taku River Valley;
 - ° Along the east side of Lynn Canal between Juneau and Skagway, providing access to the continental roadway system at Carcross, Yukon Territory. A roadway or ferry shuttle link from Skagway to Haines also is being considered by the Alaska Department of Transportation/Public Facilities (DOT/PF).
- During the past decade, the CBJ has commissioned studies concerning waterfront development, airport expansion, and transportation conditions in downtown Juneau and the Mendenhall Valley. However, a comprehensive evaluation of CBJ-wide transportation needs has not been undertaken.
- As documented in the draft Downtown Transportation Plan prepared for the CBJ in 1978, there are several major transportation problems in downtown Juneau. Coordinated planning is needed to improve traffic circulation, accommodate additional off-street parking, increase mass transit service, and facilitate pedestrian movement. These improvements support the role of downtown as a residential neighborhood and governmental, cultural, and tourist center.
- For the past two decades, the Mendenhall Valley/Auke Bay vicinity has been the most rapidly growing area in the CBJ; this trend is likely to continue. To ease existing congestion and accommodate anticipated growth, significant modifications of the roadway system will be required, as noted in the recent Mendenhall Valley Transportation Plan. Recommended projects include widening of Glacier Highway between the valley and Auke Bay and improved access from residential areas to the Egan Expressway via Riverside Drive and a new collector along Jordan Creek.
- If north, west and/or south Douglas Island are developed extensively, major road improvements will be necessary to facilitate the movement of traffic between the island and the rest of the CBJ. These include the widening and possible extension of Douglas Highway westward or southward, construction of a parallel bench road, and/or

construction of a channel crossing to the Mendenhall Valley. The latter is controversial, due to possible environmental and social impacts.

- Even though Juneau's public transit system is patronized heavily by state and federal office workers commuting between downtown Juneau and the Mendenhall Valley, the system accommodates only 8% of total vehicular trips in the CBJ. A number of recommendations from the Capital Transit Development Program, 1980-1984 have either been implemented or are being considered to improve the quality of service and increase ridership.
- Improved pedestrian and bicycle movement within and between major concentrations of population is needed to provide an alternative to automobile travel.

POLICY 39: REGIONAL TRANSPORTATION SYSTEM

The CBJ must maintain its regional, national, and international transportation links if it is to prosper and overcome its physical isolation. As southeastern Alaska's largest city, Juneau can improve its role as a regional transportation and service center by strengthening its access to this transportation network.

39 IT IS THE POLICY OF THE CBJ TO SUPPORT THE IMPROVEMENT AND EXPANSION OF AIR, MARINE, AND HIGHWAY TRANSPORTATION SYSTEMS, PARTICULARLY THOSE FACILITIES AND ACTIVITIES WHICH REINFORCE JUNEAU'S ROLE AS A REGIONAL TRANSPORTATION AND SERVICE CENTER.

IMPLEMENTING ACTIONS:

Air

- As part of the capital improvements programming process, the airport manager, airport advisory committee, and CBJ Public Works Department should:
 - ° Reevaluate recommendations in the 1978 Juneau International Airport Master Plan Study to determine the necessity and priority of the following improvements:
 - . Continued expansion and improvement of the passenger terminal including associated parking and cargo handling facilities;
 - . Installation of more sophisticated navigational equipment.

- Construction of three general aviation areas, including an expanded float plane basin, with fueling facilities, tie-downs, hangars, and other amenities;
 - Construction of a perimeter road to provide access to different areas within the airport complex.
- Work with appropriate state and federal transportation agencies to determine appropriate timing, interagency roles and responsibilities, and funding for airport improvements.
- Approve land use designations which:
 - Restrict industrial development on and around the airport to those industries which are aviation-dependent or related;
 - Prohibit additional residential development in areas on Mendenhall Peninsula subject to high noise levels from airport operations (Section V, East Mendenhall Valley/Airport subarea policies).

Marine

- Undertake a comprehensive port facilities feasibility study (See Policy 13: NEW PORT FACILITIES, page II-29) to:
 - Identify additional ferry, cruise ship, hydrofoil, barge, and small boat facilities required to meet year 1997 demand, including type, size, cost, locational requirements, and land and water access.
 - Conduct inventory of vacant waterfront property to ascertain location, marine attributes (depth, currents, and winds), size, access, and ownership.
 - Coordinate activities with appropriate state and federal transportation agencies and the private sector to determine priority, timing, interagency roles and responsibilities, and funding.
 - Incorporate port facilities to be constructed by CBJ into the capital improvements program (CIP).

Highway

- Cooperate with officials from the Alaska DOT/PF to determine feasibility of an improved transportation link between Juneau and Skagway/Haines.

POLICY 40: LOCAL TRANSPORTATION SYSTEM

With the exception of the Mendenhall Valley, existing development in the CBJ is linear, that is, confined to narrow benches of land on either side of the Gastineau Channel. It is critical, therefore, that the CBJ provide an efficient roadway system which facilitates traffic within major population centers, including the valley, Auke Bay, and Douglas Island, as well as to and within downtown, the region's employment, cultural, and tourist center.

40 IT IS THE POLICY OF THE CBJ TO PROMOTE A BALANCED, WELL-INTEGRATED LOCAL TRANSPORTATION SYSTEM WHICH PROVIDES SAFE, CONVENIENT, AND ENERGY EFFICIENT ACCESS; AND FACILITATES THE MOVEMENT OF COMMODITIES.

IMPLEMENTING ACTIONS:

- Adopt a classification ordinance and map identifying the existing and/or proposed level of use for each street in the CBJ within the following categories:
 - ° Arterial. Street intended to carry large volumes of traffic at steady speeds with minimum interruptions to traffic flow.
 - ° Collector. Street which forms the boundary of major blocks of land and is intended primarily for inter-neighborhood traffic; can function as a feeder road to commercial areas from the arterial system.
 - ° Local. Street designed to provide vehicular access to abutting properties and discourage through traffic.
- Develop list of needed roadway improvements according to priority, cost, and potential funding, and incorporate into the CBJ's capital improvement plan. Possible major roadway improvements in the Mendenhall Valley/Auke Bay and on Douglas Island are illustrated on the land use plan map.
- Require dedication of needed rights-of-way and obtain commitments to construct roadway improvements from private developers when projects are approved.
- Review and, if necessary, upgrade street construction standards in subdivision and other development ordinances to facilitate vehicular traffic and provide safe pedestrian and bicycle access.

- Designate corridors for planned and potential roadways on the land use plan map to establish a basis for subsequent site specific studies. Revise CBJ development ordinances to assure that needed rights-of-way for planned or potential roadways are reserved when development proposals are reviewed and approved. "Planned" roadway corridors are defined as those needed to serve the land use pattern shown on the land use plan map. "Potential" roadway corridors are those which may be needed in the future, but are not essential to serve the current land use; they may be needed to provide access to rural areas for resource management purposes or to a new growth area.

POLICY 41: ALTERNATIVE TRANSPORTATION MODES

Despite its contribution to congestion, air pollution, expense, and inefficient use of energy, the private automobile is the favored mode of transportation in the CBJ. To minimize these problems, the CBJ can encourage and support the provision of alternative transportation opportunities. The most significant impact is by increasing the patronage of public bus service, augmented by private carpools and vanpools. Bicycling is an alternative for shorter commuter and shopping trips as well as recreation many months of the year, and should be encouraged within and between all major concentrations of population. Although bicycle usage in the downtown core area is not practical due to physical constraints and congestion, improved pedestrian access would greatly enhance the use of the area by local employees, shoppers, and tourists.

41 IT IS THE POLICY OF THE CBJ TO PROVIDE TRANSPORTATION ALTERNATIVES TO AUTOMOBILES AS A MEANS OF REDUCING CONGESTION AND AIR POLLUTION AND CONSERVING ENERGY.

IMPLEMENTING ACTIONS:

- Continue implementation of the Capital Transit Development Program, 1980-1984, especially recommendations to:
 - ° Provide additional bus service to the Mendenhall Valley.
 - ° Initiate vanpool and carpool programs.
 - ° Coordinate public transit more effectively, including enactment of an ordinance permitting the CBJ to regulate all taxi and bus companies within its boundaries.
 - ° Implement a marketing program to increase mass transit ridership.

- Require bicycle/pedestrian paths, preferably separated from automobile traffic, in all new growth areas and planned developments of more than six acres.
- Evaluate the economic and technical feasibility of providing the following pedestrian/bicycle access:
 - ° Sidewalks and bicycle paths in and around the expanded campus of the University of Alaska, Juneau, particularly in conjunction with the construction of student housing in the Auke Bay area;
 - ° Sidewalks and bicycle lanes in the Mendenhall Valley, along Riverside Drive, Mendenhall Loop Road, and the proposed Jordan Creek collector;
 - ° A separated bicycle path between the valley and the downtown waterfront area from Mendenhall Back Loop Road via the west bank of the Mendenhall River and either Egan Drive or Glacier Highway;
 - ° Bicycle lanes as part of any road improvements on Douglas Island, including the extension of Douglas Highway and/or a new bench road and channel crossing to the Mendenhall Valley.
- Pave shoulders as part of newly constructed or substantially reconstructed arterials and collectors to facilitate safe pedestrian/bicycle access.

POLICY 42: SUBAREA TRANSPORTATION NEEDS

To insure a smoothly functioning region-wide transportation system, the CBJ must address some serious transportation problems within and between major concentrations of population. The areas most affected by projected growth, and therefore most subject to increased congestion, include downtown Juneau, Mendenhall Valley/Auke Bay, and Douglas Island.

42

IT IS THE POLICY OF THE CBJ TO RESPOND TO THE SPECIAL TRANSPORTATION NEEDS OF THE FOLLOWING AREAS: DOWNTOWN JUNEAU, MENDENHALL VALLEY/AUKE BAY, AND DOUGLAS ISLAND.

IMPLEMENTING ACTIONS:*

Juneau Subarea

- Encourage alternative modes of transportation, such as more buses, vanpools, and carpools, for commuters to and from the Mendenhall Valley, Lemon Creek, and Douglas Island.
- Encourage the state to adopt a policy encouraging staggered work hours to relieve peak hour congestion.
- Undertake a parking management program to:
 - ° Reduce allowable on-street parking to facilitate vehicular and pedestrian circulation.
 - ° Provide additional off-street, short term parking facilities to support downtown housing, retail, recreational, and cultural activities; discourage long term parking so that employees will seek alternative modes of transportation.
 - ° Resolve shortage of parking for state employees as part of joint state/CBJ capital facilities planning.
- Undertake street and sidewalk improvements as needed along the waterfront and Main, Seward, Franklin, Second, and Front Streets and Ferry Way to facilitate pedestrian movements of downtown employees, shoppers, and tourists.
- Adopt design standards for new developments which facilitate pedestrian movement, particularly in the waterfront and retail core areas.

Mendenhall Valley/Auke Bay Subareas

- Provide alternative routes in the east valley, including Riverside and/or proposed Jordan Creek collectors, to relieve increasing congestion on Mendenhall Loop Road.
- Undertake no major traffic improvements in West Mendenhall Valley and the Mendenhall Peninsula, due to their exclusion from the urban service area.

* For more detail regarding development policies for each of these subareas, see Section V, Land Use Plan Map.

- Widen Glacier Highway between the valley and Auke Bay; provide other improvements as necessary to resolve conflicts between local and through traffic.
- Undertake transportation improvements within Auke Bay to accommodate additional demand resulting from the construction of the new ferry terminal, boat marina, fish packing plant, and other facilities, as well as the expansion of the University of Alaska.

Douglas Island Subareas

- In the event of additional development on north or west Douglas Island, widen Douglas Highway to ameliorate conflicts between through and local residential traffic and/or construct a new inland bench road. It should be noted that though improvements to the existing highway are less costly than a new road, the former is likely to meet strong neighborhood opposition. A bench road is a technically feasible alternative and would provide more direct access between the north portion of the island and the Juneau/Douglas Bridge.
- To accommodate further development of north Douglas, including a small boat harbor, new freight docks, and/or residences, a channel crossing to the Mendenhall Valley may be necessary. An evaluation of the economic, environmental, and engineering feasibility of the project, as well as its social and economic impacts on downtown Juneau, should be undertaken prior to a final commitment to construct the facility.
- Extend Douglas Highway to the west or south side of the island to serve potential sites of new growth.

PUBLIC FACILITIES AND SERVICES

Public facilities and services -- water, sewer, and storm drainage systems; solid waste disposal; parks, schools, and libraries; police and fire protection; and medical/social services -- not only are important to the health, safety, and economic well being of Juneau, but also strongly influence future growth patterns. The development envisioned in this comprehensive plan cannot be realized without the availability of public facilities and services on a timely and efficient basis.

SUMMARY OF FINDINGS

General

- Rapid growth during the past decade has strained the capacity of the CBJ to provide public facilities and services. Only recently has a six-year capital improvements program (CIP) been reinstituted to determine the priority, timing, and funding of needed facilities. The CIP should be revised to reflect the recommendations in the adopted comprehensive plan.
- The CBJ generally funds improvements to the infrastructure through user fees, system development charges, and special assessments such as local improvement districts (LIDs). There has been some voter resistance to area-wide bond levies even when proposed projects would provide widespread benefits; this has made it difficult to develop the infrastructure consistently. The community receives substantial grants for infrastructure improvements from the State of Alaska.

Water

- In addition to municipal water systems in downtown Juneau and the City of Douglas, the CBJ operates four smaller systems at the airport and in East Mendenhall Valley. All other areas are served by individual or privately-owned community systems which use wells, surface water, or catchment basins; it is difficult to insure that these are repaired and maintained properly. Seasonal shortages are reported in several areas of the CBJ. The primary water system deficiency is inadequate distribution facilities rather than supply.
- Developed areas most in need of municipal water service are the East Mendenhall Valley and Auke Bay, particularly to accommodate proposed expansion of the University of Alaska and waterfront areas. Extension of municipal water to Lemon Creek is scheduled to begin in 1983.

Sewer

- The Juneau/Douglas and the Auke Bay municipal sewer systems have capacity in excess of demand. Repair and expansion of the Mendenhall Valley/Lemon Creek system is necessary to accommodate further development. A new sewage sludge disposal site must be found to replace the site on the Mendenhall Peninsula, which has been closed due to groundwater contamination. The rock dump south of downtown Juneau is being used for disposal temporarily.
- Due to slope and soil conditions, many areas not served by sewer are marginally suitable for on-site septic systems. Due to a lack of resources, the Alaska Department of Environmental Conservation (DEC), which is responsible for local enforcement, cannot adequately monitor the installation and maintenance of septic systems. This could result in contamination of shallow wells used for domestic water.
- To prevent potentially serious health problems, sewer service should be available in all new urban development areas. In areas within the urban service area, extension of existing municipal systems is likely to be the most economically and technically feasible alternative. In new growth areas some distance from municipal systems, publicly or privately-owned, packaged or community-wide sewage treatment is appropriate.

Storm Drainage

- Central storm sewers are being constructed in downtown Juneau. Adequate on-site drainage is required for all new subdivisions, planned developments, and commercial/industrial projects. Nevertheless, there are drainage problems in developed areas of the CBJ, particularly in the East Mendenhall Valley.

Solid Waste

- Solid waste is collected and disposed of by a private hauler who operates a landfill at Lemon Creek. The DEC is unlikely to approve further expansion at the site due to potentially serious water quality problems. As a result, it should reach capacity within five to eight years. To address the CBJ's long term solid waste disposal needs, planning must be initiated in the near future to identify a new landfill site. This should be in conjunction with a study of alternative methods of disposal, including incineration, compaction, and/or recycling. The latter can reduce the amount of waste material which requires disposal in a landfill.

Schools

- The Juneau Public Schools serve nearly 4,000 students in a senior high, two junior high, and six elementary schools. Based on population projections and assumptions regarding the number of school-aged children per household, it is estimated that one new high and junior high school and two or three new elementary schools must be constructed within the CBJ by 1997.
- School district building programs are not coordinated with the CBJ's Planning Department or Parks and Recreation Department. Joint planning efforts could be beneficial, particularly if population shifts or growth result in excess classrooms in some portions of the CBJ. As an alternative to school closures, these facilities could be used for other community functions such as adult education, senior citizen centers, day care facilities, or community recreational/cultural facilities.
- At its Auke Bay campus, the University of Alaska, Juneau (UAJ) grants undergraduate and graduate degrees in a variety of fields. Proposed expansion to accommodate a projected 30% more fulltime students will create pressure in the area for additional support services such as restaurants, stores, and public transportation. A continued shortage of student housing may hamper the attainment of this enrollment goal as well as threaten the school's accreditation. CBJ and university officials are studying the suitability for housing of several sites on or near the campus.

Libraries

- The CBJ operates a main library in downtown Juneau and two branches in Douglas and the Mendenhall Valley. The library facilities of the State of Alaska and the University of Alaska are not open to the general public. Existing public facilities, programs, and staffing are inadequate; choosing a site for a new main library facility is the first step in an expansion program being considered by the CBJ.

Police Protection

- The Juneau Police Department has a staff of 36, including 21 commissioned officers, and operates from downtown Juneau. Coverage is provided to Juneau, Douglas, and all municipal properties, including parks, schools, and the airport. A smaller force of Alaska State Troopers covers the remainder of the CBJ from a station near the airport. The state will be unable to accommodate additional

large-scale development in the valley or on Douglas Island. This latter area is difficult to serve under optimum conditions due to its distance from the State Trooper station.

- In a recent advisory vote, citizens rejected a proposal to create a unified, CBJ-wide law enforcement agency. Nevertheless, its technical and economic feasibility merits further exploration.

Fire Protection

- The CBJ is served by five separate fire departments which are administered centrally and linked by mutual aid agreements. In the last few years, several new fire stations have been constructed and equipment purchased. Nevertheless, the quality of fire service varies widely, due to differences in staff training, equipment, and availability of water. The Glacier and Juneau fire departments provide ambulance service to Bartlett Memorial Hospital.

Medical/Social Services

- Full utilization of the municipally-owned Bartlett Memorial Hospital, a 65-bed facility in the Salmon Creek area, is hampered by the lack of medical specialists in Juneau. Furthermore, many area residents seek specialized care in Seattle. In anticipation of greater future need, an additional 25 to 35 beds are being planned. The CBJ operates two alcohol and drug abuse treatment centers as well as programs for youth, the elderly, and the handicapped in conjunction with private agencies.

POLICY 43: PROVISION OF PUBLIC FACILITIES AND SERVICES

Together with the transportation network and private utility and communications systems, public services and facilities provide the community's "urban glue"; efficient and timely provision of these are an important adjunct to urban development. A full complement of services and facilities to promote the public's health, safety, and quality of life is needed to provide adequately for the density and intensity of land uses envisioned in the urban service area and proposed new growth areas. This level of service is not necessary in rural areas nor can it be provided in an economically efficient manner. To allocate its scarce resources efficiently, the CBJ must make public investments which meet the greatest need and serve the greatest number of residents.

43

IT IS THE POLICY OF THE CBJ TO PLAN FOR THE TIMELY AND EFFICIENT PROVISION OF AN APPROPRIATE LEVEL OF PUBLIC FACILITIES AND SERVICES IN ALL DEVELOPED AND DEVELOPING AREAS OF THE CBJ.

IMPLEMENTING ACTIONS:

- Prepare a six year capital improvements program (CIP) which includes a list of projects to be funded during the coming fiscal year as well as those recommended for consideration during the subsequent five years. Annually review all previously unfunded projects, plus new projects, and extend the CIP an additional year. The process for completing the annual CIP is as follows*:
 - ° Generation of potential projects. To initiate the process, the planning director identifies all potential capital improvement projects from a variety of sources including the comprehensive plan document, suggestions of citizen and special interest groups, other city officials and department heads, advisory commissions, state mandate, etc.
 - ° Review by staff. Submit each potential project to the CBJ department responsible for its implementation; require a detailed summary and evaluation of its purpose, needs, and estimated costs, assigning a departmental priority.
 - ° Evaluation by review committee. A special committee composed of the city manager and finance, planning, and engineering directors, reviews all proposed projects to:
 - . Identify potential funding sources.
 - . Determine compliance with the comprehensive plan and other CBJ goals and objectives.
 - . Coordinate with related projects.
 - . Determine priority among all other projects.

* Taken in part from the City and Borough of Juneau Capital Budget Manual, March 10, 1982.

In establishing priorities, the review committee should consider criteria such as the following:

- . Public health;
 - . Public safety;
 - . Essential maintenance;
 - . Enhancement of efficiency;
 - . Improvement of general welfare;
 - . Relief of inconvenience, congestion;
 - . Amenity improvement;
 - . Possibility of private sector involvement.
- ° Planning Commission review. The Planning Commission reviews all projects, resulting in a preliminary CIP.
 - ° Borough Assembly review. The Assembly reviews the preliminary CIP as part of its annual budgeting process. The final CIP should reflect the major needs and priorities of the community and be related to its resources.
- With regard to funding of capital improvements, the CBJ should:
- ° Coordinate activities with the State of Alaska, particularly the Department of Transportation/Public Facilities (DOT/PF), to assure that local priorities are reflected wherever possible in the state's capital budget.
 - ° Allocate sufficient staff to identify other available outside revenue sources.
 - ° Complete local planning for high priority public facilities and services to take advantage of funding sources as they become available.
 - ° Develop local funding adequate to meet the matching requirements of other sources.
 - ° Require sharing of most public facility costs between new development and the existing community through means such as system development charges and local improvement districts (LIDs). However, when a new

facility will have widespread benefits for the community, finance through general obligation or revenue bonds or property tax levies.

POLICY 44: PUBLIC WATER, SEWER, AND STORM DRAINAGE

To support the nature and density of development envisioned in the urban service and new growth areas, enhance the quality of life, promote public health, and protect the environment, the CBJ should provide adequate water, sewer, and storm drainage facilities. In the urban service area, extension of municipally-owned water and sewer systems is a desirable alternative to the continued proliferation of privately-owned systems, especially as it is difficult to insure that the latter are maintained and repaired properly.

All potential new growth areas may be most feasibly served through the use of self-contained water, sewer, and storm drainage facilities. To help decide whether these should be publicly or privately owned and maintained, the CBJ should first determine its role with regard to the development of these areas (see Section II, New Growth Areas and Community Development for further information).

While planning for orderly and efficient service to newly developing areas, the CBJ also must address the serious problems resulting from the lack of or inadequate provision of municipal water, sewer, and/or storm drainage facilities in already developed areas of the CBJ including East Mendenhall Valley, Auke Bay, and Lemon Creek.

44 IT IS THE POLICY OF THE CBJ TO EXTEND PUBLIC WATER, SEWER, AND STORM DRAINAGE FACILITIES TO ALL DEVELOPED AND DEVELOPING AREAS WHICH LACK SUCH SERVICE WHILE DISCOURAGING THE PROVISION OF SUCH FACILITIES BY THE PRIVATE SECTOR. THE CBJ ALSO WILL REQUIRE THE PROVISION OF WATER, SEWER, AND STORM DRAINAGE FACILITIES IN ALL NEW GROWTH AREAS.

IMPLEMENTING ACTIONS:

- Prepare for inclusion in the capital improvements program (CIP) projects to:
 - ° Repair and extend the East Mendenhall Valley sewer system.
 - ° Construct a municipal water system for the east valley, utilizing one or all of the following sources: Montana Creek, Nugget Creek, and/or a well field at the base of Thunder Mountain.

- Explore alternative means of providing municipal water and storm drainage facilities in Auke Bay to accommodate existing and proposed development (see Auke Bay subarea policies in Section V for further information).
- Identify and acquire a permanent sewage sludge disposal site; require as part of the conditional use process adequate engineering to insure minimal surface and ground-water contamination.
- Review and, if necessary, revise subdivision and plan development regulations to establish minimum standards and criteria for sewer, water, and storm drainage.
- In new growth areas, coordinate and finance public services and facilities and/or assist private developers to 1) design such facilities and 2) identify state sources of technical information/funding. See Policy 6: NEW GROWTH AREAS for further information regarding the CBJ's development role.
- Assume responsibility from Alaska Department of Environmental Conservation for regulating on-site septic systems and wells to prevent contamination of domestic water sources.

POLICY 45: SOLID WASTE

Another important local government function is to provide for the disposal of solid waste in an aesthetic and environmentally safe manner. Traditionally, solid waste has been placed in landfills, although alternate methods such as recycling, compaction, and/or incineration can reduce the quantity of material disposed in this manner. As the CBJ's current landfill site at Lemon Creek will reach capacity in five to eight years, the CBJ must study these needs in the near future.

45

IT IS THE POLICY OF THE CBJ TO UTILIZE EFFICIENT AND SAFE METHODS OF DISPOSING SOLID WASTE.

IMPLEMENTING ACTIONS:

- Explore alternative disposal methods, including recycling, compaction, and/or incineration to reduce quantity of solid waste requiring landfills.

- Identify new landfill site within two years so that the facility can be designed and necessary permits obtained to replace the Lemon Creek site when it reaches its capacity.

POLICY 46: SCHOOLS

One of the most important factors influencing the quality of life in a community is a good elementary, secondary, and university educational system. In addition to its role as an important source of jobs and revenue, the University of Alaska, Juneau, and its community college offer educational and technical training to Juneau's population.

46 IT IS THE POLICY OF THE CBJ TO SUPPORT AND FACILITATE HIGH QUALITY ELEMENTARY, SECONDARY, AND HIGHER EDUCATION IN THE CBJ.

IMPLEMENTING ACTIONS:

- Indicate general sites for new school facilities on the land use plan map.
- Encourage the Juneau school district to engage in joint planning activities with the CBJ to:
 - ° Identify future facility needs.
 - ° Acquire appropriate sites.
 - ° Utilize school facilities during non-school hours for community educational, recreational, and cultural activities.
 - ° Plan for the reuse of excess classrooms/schools for other community functions.
- With regard to the proposed expansion of the University of Alaska, Juneau, campus at Auke Bay:
 - ° Undertake detailed planning for the Auke Bay area which considers the on and off-site impacts and requirements associated with UAJ expansion.
 - ° Explore alternatives for student housing on and off campus, including the possible trade of selected lands adjacent to the campus for university-owned property on Montana Creek.

POLICY 47: LIBRARIES

Libraries are another important amenity in an urban area. Currently, the CBJ is engaged in planning to improve its existing public facilities, programs, and staff. Although they are not generally open to the public for lending purposes, the library facilities of the State of Alaska and the University of Alaska are another rich resource for on-site reading and research.

47

IT IS THE POLICY OF THE CBJ TO SUPPORT AND FACILITATE CONTINUING EFFORTS TO IMPROVE LIBRARY SERVICE.

IMPLEMENTING ACTIONS:

- Identify and pursue local, state, and federal funding sources for library improvements.
- Continue to implement the CBJ plan for the expansion of services, including the acquisition of sites, to accommodate additional population growth.

POLICY 48: POLICE PROTECTION

By enhancing residents' sense of security, good police protection contributes to the quality of life. Currently, the CBJ is served by two law enforcement agencies: the Juneau Police Department, with responsibility for Juneau and Douglas; and a small contingent of Alaska State Troopers, which polices the remainder of the CBJ. Although in a recent advisory vote, the citizens rejected a proposal to create a unified, CBJ-wide law enforcement agency, the safety, technical, and economic aspects of this proposal should be explored more thoroughly.

48

IT IS THE POLICY OF THE CBJ TO PROMOTE ADEQUATE AND EFFICIENT POLICE PROTECTION.

IMPLEMENTING ACTIONS:

- Explore the advantages of creating a unified, CBJ-wide police force:
 - ° Identify appropriate funding mechanisms, institutional structure, and timing;

- ° Seek approval by CBJ residents, if appropriate.
- If unification above cannot be accomplished in the short term, redraw service boundaries so that Douglas Island is served by the Juneau Police Department; clarify other roles and responsibilities of the state and local police to insure more efficient and cost effective service to all residents.

POLICY 49: FIRE PROTECTION

Due to differences in staff training, equipment, and availability of water, the quality of protection provided by the five fire departments within the CBJ varies widely. Through central administration and mutual aid agreements, there has been some attempt to reduce duplication of services and create an economy of scale.

49 IT IS THE POLICY OF THE CBJ TO PROMOTE ADEQUATE AND EFFICIENT FIRE PROTECTION FOR ALL CITIZENS.

IMPLEMENTING ACTIONS:

- Support continued efforts to centralize administrative and budgeting functions of the five fire departments to improve efficiency and upgrade service.
- Undertake improvements to the water system to increase fire flows.

POLICY 50: MEDICAL/SOCIAL SERVICES

High quality medical and social services are other important amenities of urban life. In addition to the municipally-owned and operated Bartlett Memorial Hospital, the CBJ operates two alcohol and drug abuse treatment centers as well as programs for youth, the elderly, and the handicapped in conjunction with private agencies. Continued provision of quality services is an important goal of the CBJ.

50 IT IS THE POLICY OF THE CBJ TO PROMOTE QUALITY MEDICAL AND SOCIAL SERVICES IN THE CBJ.

IMPLEMENTING ACTIONS:

- Designate adequate land nearby Bartlett Memorial Hospital to accommodate expansion of hospital/support medical facilities. See Section V, Land Use Plan Map.
- Continue to provide public funds for programs for youth, the elderly, handicapped, and other groups with special needs.

VII.

COASTAL

MANAGEMENT

VII. COASTAL MANAGEMENT

This comprehensive land use plan is the policy component of the Juneau District Coastal Management Program (CMP), required by the State of Alaska. At a later date, the implementation component of the CMP will be prepared as part of the implementing ordinances called for in this plan. Upon approval of the Alaska Coastal Policy Council (CACPC), these combined policies and implementation measures will constitute the District CMP.

SUMMARY OF FINDINGS

- The boundaries of the CBJ coastal zone are delineated in the report, Biophysical Boundaries of the Coastal Zone, prepared by the Alaska Department of Fish and Game, and coincide in many respects to the study area for this plan. Another large quantity of land, outside the study area, is also nearly entirely within the coastal zone. Primarily under U.S. Forest Service jurisdiction, it is covered by the policies of this plan.
- A basic issue of potential conflict is between goals to conserve natural resources and those for economic and community development. The most practical and effective approach to resolve these issues in the CBJ is to combine the policies and implementing measures of the Comprehensive Plan and Coastal Management Program.
- The Alaska Coastal Management Act and the guidelines and standards adopted by the Alaska Coastal Policy Council have been studied in the process of developing the background analysis and policies of this plan. Summaries of these important documents and their relationship to the this plan are noted in Tables VII-1 and VII-2.
- The resource inventory and analysis in Volume II, the Technical Appendix, is the basis upon which coastal-related policies of this plan were developed.
- There is significant development in shoreline areas of the CBJ, much of which is devoted to water-dependent and water-related uses such as docking facilities, warehousing, and restaurants. However, some is devoted to housing and offices, which do not require a water orientation.

- Residents of the CBJ support measures to preserve coastal resources and values and assure an adequate supply of land for water-related and water-dependent uses. Studies show that they also believe that there is sufficient and appropriate land for additional residential development on selected portions of the shoreline.
- The downtown area is the employment, civic, and cultural center of the community. Its waterfront is a unique part of the CBJ coastal area. A spectacular setting, commercial activity, and other features provide an attractive focal point for tourists and visitors. Water-related and water-dependent uses continue to be the leading priorities for waterfront development. Certain portions of the downtown waterfront, however, may be developed appropriately for other uses, as long as they are compatible with the surroundings. Intense pressures for development can be expected to continue.
- The CBJ coastal area contains significant geophysical hazard areas, including landslide and avalanche hazards, flooding, and seismic hazards. These are discussed in detail in Section III of the Technical Appendix and addressed specifically by policies identified in Table VII-2.
- The coastal area can be used for a variety of recreational activities such as fishing, shellfish harvesting, hiking, and scenic enjoyment. Recreational use of the coastal area is addressed in Sections VI of the Technical Appendix and by policies identified in Table VII-2.
- There are no major energy generating facilities within the CBJ coastal area, and none are planned. Several major utility lines and transportation corridors are proposed; they are discussed in the Technical Appendix, Section XI and in policies identified in Table VII-2.
- Fish processing facilities in the CBJ have declined due to the distance from the open ocean and advanced fishing and fish processing technology. New fish processing facilities may be developed.
- A number of small scale mining operations are located within the CBJ. An environmental impact statement on a major mining facility, the Noranda Mine on Admiralty Island, is underway. Extensive minerals exploration activity is taking place, for the most part, north of the study area on land managed by the U.S. Forest Service. Due to the presence of marine transport facilities, commercial activity, and residential and community support facilities, mining activity in the CBJ can be expected to

increase. Demand will probably accelerate for land suitable for exploration and processing activities.

- Subsistence activity within the CBJ is limited, and there is no evident conflict with development.
- Significant habitats in the coastal area include estuaries, wetlands and tideflats, offshore areas, lakes and streams, and important upland habitats. They function as fish spawning and rearing habitat, including herring, shellfish, humpback whale, and as deer wintering habitats, sea lion rookeries; and bald eagle nesting areas. Sections V and VI of the Technical Appendix provide detailed discussion. Table VII-2 identifies appropriate policies.
- Air and water quality problems have been identified within the coastal area. The leading air quality problem is due to the increase in wood burning for heat and its relationship to air inversions in the Mendenhall Valley. Major water quality problems are well water contamination from poorly sited and designed septic tanks and sedimentation from sand and gravel operations in Lemon Creek. Section IV of the Technical Appendix contains a detailed discussion of water resource issues. Table VII-2 identifies policies affecting these issues.
- Historic, prehistoric, and archaeological resources of the CBJ were studied and evaluated for Phases I and II of the Juneau Coastal Management Program. Table VII-2 identifies policies affecting these resources.

POLICIES AND IMPLEMENTING ACTIONS

Table VII-1 shows how the various aspects of the Alaska Coastal Management Act are met by this comprehensive plan and coastal management program. Table VII-2 identifies the location in this document of policies and implementing actions which respond to the coastal management standards adopted by the ACPC.

Table VII-1*

PROCEDURAL GUIDELINES FOR DISTRICT COASTAL MANAGEMENT PROGRAMS

<u>Guideline</u>	<u>Relevant Sections of This Comprehensive Plan and Coastal Management Program</u>
1. <u>Needs, Objectives, Goals.</u> Each district program must include a statement of the district's overall coastal management needs, objectives, or goals, or the district's comprehensive land and resource use plan.	Section I, Introduction and Background; Section II, Growth and Development; Section III, Natural Resources and Hazards; Section IV, Land Use
2. <u>Organization.</u> Each district program must include a description of the district program organization for coastal management. Budgetary and staff needs and, where appropriate, a schedule for necessary reorganization must be included.	Section VIII, Implementation and Administration
3. <u>Boundaries of the Coastal Zone.</u> Each district must include a map of the boundaries of the coastal area within the district subject to the district program. Initial boundaries must be based on <u>Biophysical Boundaries of Alaska's Coastal Zone</u> (ADF&G). Final boundaries may differ if they meet certain conditions outlined in 6AAC-85.040.	Section I, Introduction and Background; Technical Appendix Section II, Topography

* Source: Alaska Administrative Code 6AAC-85

Table VII-1 (cont.)

Guideline	Relevant Sections of This Comprehensive Plan and Coastal Management Program
4. <u>Resource Inventory.</u> Each district program must include a resource inventory which describes, in a manner sufficient for program development and implementation, significant habitats, cultural resources, major land and water use activities, major land and resource ownership and management responsibilities, and major historic, prehistoric, and archaeological resources.	Volume II, Technical Appendix, Juneau Coastal Management Program Studies Phase I & II (for historic, prehistoric, and archaeological resources)
5. <u>Resource Analysis.</u> Each district program must include a resource analysis which describes, in a manner sufficient for program development and implementation, significant anticipated changes, an evaluation of the environmental capability, sensitivity of resources and habitats, and an assessment of anticipated demands and needs for coastal habitats and resources.	Volume I, Findings, Policies, and Implementation; Volume II, Technical Appendix
6. <u>Subject Uses.</u> Each district program must include a description of the land and water uses and activities which are subject to the district program.	Section IV, Land Use; Section V, Land Use Plan Map
7. <u>Proper and Improper Uses.</u> Each district program must include a description of the uses and activities, including uses of state concern, that will be considered proper, and the uses and activities, including uses of state concern, that will be considered improper within the coastal area, including land and water use designations.	Section IV, Land Use; Section V, Land Use Plan Map

Table VII-1 (cont.)

Guideline	Relevant Sections of This Comprehensive Plan and Coastal Management Program
<p>8. <u>Policies.</u> Each district program must include a summary or statement of the policies that will be applied to land and water uses and activities subject to the district program and the process which will be used to determine whether specific proposals for land and water uses and activities will be allowed.</p>	<p>Section II, Growth and Development; Section III, Natural Resources and Hazards; Section IV, Land Use; Section V, Land Use Plan Map; Section VI, Transportation/ Public Facilities and Services</p>
<p>9. <u>Implementation.</u> Each district program must include a description of the methods and authority which will be used to implement the district program. Methods and authority must be adequate to insure program implementation, and any additional methods or authority which are required must be specified. Methods and authority include land and water use plans, municipal ordinances, and resolutions, (including shoreline, zoning, and subdivision ordinances and building codes), state and federal statutes and regulations, capital improvement programs, the purchase, sale, lease, or exchange of coastal land and water resources, cooperative agreements, tax exemptions for nondevelopment purchase of development rights, memoranda of understanding, and coordinated project or permit review procedures.</p>	<p>Section VIII, Implementation and Administration</p>

Table VII-2*

COASTAL MANAGEMENT STANDARDS FOR USES, ACTIVITIES,
RESOURCES, AND HABITATS

Standard	Relevant Sections of This Comprehensive Plan and Coastal Management Program
1. <u>Coastal Development.</u> In planning for and approving development in coastal areas, districts and state agencies shall give, in the following order, priority to: water-dependent uses and activities; water-related uses and activities; and non-water-dependent nor water-related uses.	Section II, Growth and Development Section IV, Land Use; Section V, Land Use Plan Map; Policy 5: Coastal Area Planning; Policy 13: New Port Facilities; Policy 34: Waterfront Commercial/ Industrial Development; Policy 39: Regional Transportation System
2. <u>Geophysical Hazard Areas.</u> Districts and state agencies shall identify known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur. Development in geophysical hazard areas may not be approved by the appropriate state or local authority until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided.	Section III, Natural Resources and Hazards; Policy 24: Landslide and Avalanche Hazards; Policy 25: Floodplains

* Source: Alaska Administrative Code 6AA6-80.

Table VII-2 (cont.)

Standard	Relevant Sections of This Comprehensive Plan and Coastal Management Program
<p>3. <u>Recreation.</u> Districts shall designate areas for recreational use. Criteria for designation of areas of recreational use are:</p> <ul style="list-style-type: none"> - The area receives significant use by persons engaging in recreational pursuits or is a major tourist destination. - The area has potential for high quality recreational use because of physical, biological, or cultural features. - Districts and state agencies shall give high priority to maintaining and, where appropriate, increasing public access to coastal water. 	<p>Policy 3: Rural Area Development; Policy 27: Open Space; Policy 36: Parks and Recreation</p>
<p>4. <u>Energy Facilities.</u> Sites suitable for the development of major energy facilities must be identified by the state in cooperation with districts.</p>	<p>Not Applicable</p>
<p>5. <u>Transportation and Utilities.</u> Transportation and utility routes and facilities in the coastal area must be sited, designed, and constructed so as to be compatible with district programs. Transportation and utility routes and facilities must be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility.</p>	<p>Section V, Land Use Plan Map, Subareas; Policy 13: New Port Facilities Policy 39: Regional Transportation System; Policy 40: Local Transportation System; Policy 43: Provision of Public Facilities and Services</p>

Table VII-2 (cont.)

Standard	Relevant Sections of This Comprehensive Plan and Coastal Management Program
<p>6. <u>Fish and Seafood Processing.</u> Districts shall identify and may designate areas of the coast suitable for the location or development of facilities related to commercial fishing and seafood processing.</p>	<p>Policy 34: Waterfront Commercial/Industrial Development</p>
<p>7. <u>Timber Harvest and Processing.</u> Preempted by Forest Practices Regulations, 6 AAC 11.95, pursuant to as 41.17.010 (see DNR Regulations Reference No. 251, 252 & 253).</p>	<p>Policy 33: Resource Based Industrial Development</p>
<p>8. <u>Mining and Mineral Processing.</u> Mining and mineral processing in the coastal area must be regulated, designed, and conducted so as to be compatible with the standards contained in this chapter, adjacent uses and activities, statewide and national needs, and district programs.</p>	<p>Policy 21: Gravel Resources Policy 26: Sensitive Areas Policy 33: Resource Based Industrial Development</p>
<p>Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits, when there is no feasible and prudent alternative to coastal extraction which will meet the public need for the sand or gravel.</p>	
<p>9. <u>Subsistence.</u> Districts and state agencies shall recognize and assure opportunities for subsistence usage of coastal areas and resources.</p>	<p>Not applicable</p>

Table VII-2 (cont.)

Standard	Relevant Sections of This Comprehensive Plan and Coastal Management Program
<p>10. <u>Habitats.</u> Habitats in the coastal area which are subject to the Alaska coastal management program include offshore areas; estuaries; wetlands and tideflats; rocky islands and seacliffs; barrier islands and lagoons; exposed high energy coasts; rivers, streams, and lakes; and important upland habitat.</p>	<p>Section II, Growth and Development Section III, Natural Resources and Hazards; Policy 4: Environmental Protection; Policy 17: Deer Wintering Habitat Policy 18: Eagle Nesting Areas; Policy 19: Stream Corridors and Lake Shorelines; Policy 20: Wetlands and Intertidal Areas Policy 26: Sensitive Areas; Policy 37: Open Space</p>
<p>The habitats identified above must be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat which contribute to its capacity to support living resources.</p>	
<p>In addition to the general standard, the following standards apply to the management of the following habitats:</p>	
<ul style="list-style-type: none"> - Offshore areas must be managed as a fisheries conservation zone so as to maintain or enhance the state's sport, commercial, and subsistence fishery; 	
<ul style="list-style-type: none"> - Estuaries must be managed so as to assure adequate water flow, natural circulation patterns, nutrients, and oxygen levels, and avoid the discharge of toxic wastes, silt, and destruction of productive habitat; 	<p>Policy 19: Stream Corridors and Lake Shorelines; Policy 20: Wetlands and Intertidal Areas; Policy 26: Sensitive Areas; Policy 37: Open Space</p>

Table VII-2 (cont.)

Standard	Relevant Sections of This Comprehensive Plan and Coastal Management Program
<ul style="list-style-type: none"> - Wetlands and tideflats must be managed so as to assure adequate water flow, nutrients, and oxygen levels and avoid adverse effects on natural drainage patterns, the destruction of important habitat, and the discharge of toxic substances; 	<ul style="list-style-type: none"> Policy 20: Wetlands and Inter-tidal Areas; Policy 26: Sensitive Areas; Policy 37: Open Space
<ul style="list-style-type: none"> - Rocky islands and seacliffs must be managed to as to avoid the harassment of wildlife, destruction of important habitat, and the introduction of competing or destructive species and predators; 	
<ul style="list-style-type: none"> - Barrier islands and lagoons must be managed so as to maintain adequate flows of sediments, detritus, and water, avoid the alteration or redirection of wave energy which would lead to the filling in of lagoons or the erosion of barrier islands, and discourage activities which would decrease the use of barrier islands by coastal species, including polar bears and nesting birds; 	
<ul style="list-style-type: none"> - High energy costs must be managed by assuring the adequate mix and transport of sediments and nutrients and avoiding redirection of transport processes and wave energy; 	

Table VII-2 (cont.)

Standard	Relevant Sections of This Comprehensive Plan and Coastal Management Program
<ul style="list-style-type: none"> - Rivers, streams, and lakes must be managed to protect natural vegetation, water quality, important fish or wildlife habitat and natural water flow; - Uses and activities in the coastal area which will not conform to the standards contained in (b) and (c) of this section may be allowed by the district or appropriate state agency under certain conditions, as identified in 6AAC-80. 	<p>Policy 20: Stream Corridors and Lake Shorelines; Policy 26: Sensitive Areas; Policy 37: Open Space</p>
<p>11. <u>Air, Land, and Water Quality.</u> Notwithstanding any other provision of this chapter, the statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land, and water quality are incorporated into the Alaska coastal management program and, as administered by that agency, constitute the components of the coastal management program with respect to those purposes.</p>	<p>Policy 4: Environmental Quality; Policy 22: Air Quality; Policy 23: Noise; Policy 26: Sensitive Areas; Policy 44: Public Water, Sewer, and Storm Drainage</p>
<p>12. <u>Historic, Prehistoric, and Archaeological Resources.</u> Districts and appropriate state agencies shall identify areas of the coast which are important to the study, understanding, or illustration of national, state, or local history or prehistory.</p>	<p>Policy 8: Housing Condition; Policy 38: Historic Resources</p>

VIII.

IMPLEMENTATION
AND
ADMINISTRATION

VIII. IMPLEMENTATION AND ADMINISTRATION

The findings and policies in this comprehensive plan and coastal management program concern the natural and human factors which will influence Juneau's future growth. They reflect the expressed desire of the citizens to build upon the best characteristics of their community and mitigate problems which may arise from uncontrolled development.

In order to have an effective and responsive leadership role in these matters, the CBJ should, as soon as possible:

- Adopt the comprehensive plan as a legally binding policy document and require that all subsequent plans, policies, and ordinances be consistent with its provisions.
- Monitor changes in land use, social, economic, and environmental conditions; periodically review and update the plan to reflect these factors.
- Establish procedures to amend the plan to address needs of individual property owners.
- Institute ongoing citizen involvement in the land use decision making process.
- Coordinate activities with state and federal agencies with regard to local decisions of mutual concern.

This section discusses the factors necessary for successful implementation of this comprehensive plan -- procedural policies, including those related to adoption, updating, and amendment; citizen involvement; and intergovernmental coordination.

SUMMARY OF FINDINGS

- Existing development ordinances, including those related to zoning, subdivision*, and infrastructure, are inadequate to meet local conditions and inconsistent with the provisions of this comprehensive plan.

* Referred to as "platting regulations" in the CBJ's Planning and Zoning Ordinance (Title 49).

- The CBJ recently reinstituted a process to coordinate the timing and funding of public facilities through a six-year capital improvements program (CIP). It should include the public improvements recommended in this comprehensive plan.
- In the development of this plan, an extensive citizen involvement and information program was undertaken. Activities included a citizens advisory committee (CAC), community workshops and surveys, and extensive media coverage. Ongoing involvement of citizens in future land use planning, particularly with regard to issues and decisions affecting their neighborhoods, is essential.
- There is little or no coordination between the CBJ and state and federal agencies regarding local land use decisions, even though these governments control nearly 80% of Juneau's land area and have major responsibilities for managing coastal and other natural resources. This comprehensive plan will be an effective development only if state, federal, and local officials make decisions consistent with its provisions.
- The initial implementation steps as well as ongoing administration of this comprehensive plan can be expected to require an increase in planning staff personnel.

POLICY 51: COMPREHENSIVE PLAN AS GUIDING PLANNING DOCUMENT

A carefully drafted, broadly supported comprehensive plan and coastal management program provides a rational and consistent policy basis for guiding all future CBJ growth and development decisions. This requires that each land use decision, from the most minor variance to the development of a new growth area, be evaluated for its compliance with the policies, standards, and criteria established in the plan. To insure this, the City and Borough Assembly should adopt the plan as a legally binding document and require that all subsequent implementing ordinances, plans, and programs are consistent with its provisions. In addition, procedures should be established to insure that compliance is an integral part of the land use decision making process.

51 IT IS THE POLICY OF THE CBJ TO ESTABLISH THIS COMPREHENSIVE PLAN AND COASTAL MANAGEMENT PROGRAM AS THE PRIMARY POLICY DOCUMENT TO GUIDE FUTURE GROWTH AND DEVELOPMENT.

IMPLEMENTING ACTIONS:

- Adopt the comprehensive plan and coastal management program by ordinance as the CBJ's legally binding land use policy document to supercede all previous land use plans, policies, ordinances, and programs which are inconsistent with its provisions.
- Develop work program for post-adoption period; assess planning staff capacity to prepare implementing measures on a timely basis.
- Revise, as necessary, zoning, subdivision, and other land development ordinances to insure consistency with the plan's provisions. Amend the zoning map, considering it to be the official application of the comprehensive plan map to specific sites within the CBJ.
- Complete a six year capital improvements program (CIP). Develop annual budgets which incorporate the transportation and other public improvements recommended in the plan.
- Complete and adopt detailed subarea plans as needed, e.g. for downtown and Auke Bay.
- Establish joint state/CBJ capital planning commission. See Policy 9: STATE CAPITAL, page II-27 for specific implementation responsibilities.
- Continue the citizens advisory committee (CAC) as a body to advise the Planning Commission and Borough Assembly in related planning matters.
- Evaluate all ordinances, plans, and public programs to insure their consistency with the comprehensive plan and coastal management program. For specific land use decisions, require the applicant, whether a public agency or private property owner, to demonstrate compliance to each applicable policy or provide evidence why an exception to a policy is warranted. Incorporate statement regarding compliance/non-compliance with policies into findings of fact which provide the legal basis for determining approval or disapproval of a development application.

POLICY 52: AMENDMENT AND UPDATING

A comprehensive plan is an effective policy instrument only if it is periodically updated to reflect current conditions and needs. The state requirement that a plan be reviewed every two years will provide the CBJ with opportunities to make important mid-course corrections which respond to identified deficiencies and problems and/or accommodate changing social, economic, and environmental conditions. Provision should be made for amendments between times, especially in regard to issues affecting individual property owners.

52 IT IS THE POLICY OF THE CBJ TO UPDATE THE COMPREHENSIVE PLAN AND COASTAL MANAGEMENT PROGRAM EVERY TWO YEARS TO REFLECT CHANGING CONDITIONS AND NEEDS AND PERMIT APPROPRIATE AMENDMENTS IN THE PERIOD BETWEEN.

IMPLEMENTING ACTIONS:

- Develop procedures to monitor changing conditions and update data base as necessary. This may require establishing a data collection system and hiring additional staff.
- The Planning Department should prepare an annual report which indicates:
 - ° Public and private development activity in the past year;
 - ° Problems and deficiencies identified in implementing the comprehensive plan;
 - ° Environmental, economic, social, demographic and other conditions which may necessitate changes and/or amendments to the plan.
- The Planning Department should identify all general and site-specific changes, issues, and concerns which should be addressed in the biennial updating process, after soliciting comments from:
 - ° Other CBJ officials;
 - ° State and federal agencies responsible for local planning/ development (e.g. Alaska Coastal Policy Council, U.S. Forest Service);
 - ° Private property owners, neighborhood and business organizations, and other special interest groups.

- Establish procedures governing the updating process including roles and responsibilities of staff and public officials, nature and extent of citizen involvement, and public notice and hearing requirements.
- Adopt procedures for considering amendments to the comprehensive plan or text initiated by property owners or citizens between major updating, providing that one or more of the following factors can be demonstrated:
 - ° Original decision was in error because important information available at the time was not adequately considered;
 - ° Changing conditions and/or new information renders the original decision inappropriate;
 - ° Proposed change is consistent with other applicable policies of the comprehensive plan and coastal management program and any specific subarea plans which apply to the site/area.

POLICY 53: CITIZEN INVOLVEMENT

Efforts to involve citizens in the formulation of this plan insures that a wide range of community attitudes and interests are reflected in the final product; the process also helps develop an understanding of and support for land use planning. The CBJ should continue to provide citizens with a timely and efficient means of receiving information about local land use proposals and participating in a decision making process in a manner appropriate to the level, type, and importance of the activity or decision.

53 IT IS THE POLICY OF THE CBJ TO MAINTAIN AN ONGOING CITIZEN INVOLVEMENT PROGRAM IN RELATION TO LAND USE PLANNING.

IMPLEMENTING ACTIONS:

- Continue to encourage media coverage of land use activities; provide ample public notification of public meetings and hearings, allowing citizens adequate time to respond to new proposals.
- Encourage and facilitate the formation of neighborhood organizations in areas which lack such representation in order to advise the CBJ of neighborhood and community-wide opinions in land use matters.

- ° Establish procedures for new organizations including recognition provisions, meeting and notification requirements, and other factors.
- ° Notify neighborhood organizations of proposed land use actions which affect them directly.
- ° Submit texts of proposed ordinances and plans to affected neighborhood associations; allow for timely review and comment.
- ° Provide technical assistance, including analysis of land use issues, preparation of newsletters and other written materials, crime prevention, and other appropriate activities.
- ° Include representatives of neighborhood organizations in the capital improvement and budgeting processes.
- ° Provide financial assistance, if possible, to offset costs of printing and other activities.
- Sponsor public outreach meetings, workshops, citizen advisory committees, and/or citizen task forces to advise the CBJ on major issues of community-wide concern such as solid waste disposal, new growth area development, and downtown planning.

POLICY 54: INTERGOVERNMENTAL COORDINATION

As noted in the findings, there is a need for improved coordination between the CBJ and state and federal agencies, as the latter governments control nearly 80% of the CBJ's land area and have major responsibilities for managing/developing coastal and other natural resources. This comprehensive plan and coastal management program is an effective guide for future growth and development in the CBJ only with the cooperation of these entities.

54 IT IS THE POLICY OF THE CBJ TO FACILITATE INTERGOVERNMENTAL COORDINATION SO THAT DECISIONS AFFECTING LOCAL PLANNING AND DEVELOPMENT ARE RENDERED IN AN EFFICIENT AND CONSISTENT MANNER.

IMPLEMENTING ACTIONS:

- Establish intergovernmental agreements with those state and federal agencies which have local management/development responsibilities -- the Alaska Coastal Policy Council, Alaska Departments of Transportation/Public

Facilities and Environmental Conservation, U.S. Forest Service, Bureau of Land Management, and others. Utilize agreements to insure that these agencies undertake local programs which are consistent with the comprehensive plan and coastal management program and that the CBJ is informed of these activities in a timely manner.

- Notify appropriate state and federal agencies of local actions which affect matters within their jurisdiction.
- Assign appropriate CBJ personnel as liaisons with these agencies.

OUTLINE OF IMPLEMENTATION ACTIONS

A summary of the nature and proposed timing of procedural and substantive actions which facilitate the implementation of this comprehensive plan is presented in Table VIII-1.

Table VIII-1

SUMMARY OF MAJOR IMPLEMENTATION ACTIONS

Action	Role/Responsibility	Applicable Policies
<u>Immediate (1 to 3 months)</u>		
1. Adopt comprehensive plan & coastal management program by ordinance.	Borough Assembly	Policy 51: COMPREHENSIVE PLAN AS GUIDING PLANNING DOCUMENT
2. Develop work program for the post-adoption period. Assess planning staff capacity to prepare implementation measures on a timely basis.	Planning Director	Same as above
3. Establish and adopt by ordinance, updating and amendment procedures	Borough Assembly	Policy 52: AMENDMENT AND UPDATING
4. Continue to operate under existing zoning law while allowing development which is consistent with policies of the plan.	Planning Department Planning Commission	Policy 51: COMPREHENSIVE PLAN AS GUIDING PLANNING DOCUMENT
5. Continue Citizens Advisory Committee (CAC) or appoint similar body to advise during post adoption period for a maximum period of two years.	Borough Assembly	Policy 53: CITIZEN INVOLVEMENT

Table VIII-1 (cont.)

Action	Role/Responsibility	Applicable Policies
<u>Short Term</u> (within 3 to 12 months)		
1. Revise & codify planning & zoning regulations (Title 49); all other ordinances governing development standards including:	Planning Department Planning Commission Borough Assembly CAC	Policy 51: COMPREHENSIVE PLAN AS GUIDING PLANNING DOCUMENT
- Revise planned development (PD) regulations;		
- Create sensitive area overlay zones and management procedures;		
- Improve infrastructure standards;		
- Create design review system.		
2. Revise and adopt zoning maps.	Same as above	Same as above.
3. Submit above ordinances and maps for adoption by Alaska Coastal Policy Council for adoption.	Borough Assembly	Policy 5: COASTAL AREA PLANNING
4. Complete & adopt capital improvements program and budget for FY 1983-84.	Planning Director Planning Commission Borough Assembly	Policy 43: PROVISION OF PUBLIC FACILITIES AND SERVICES
5. Establish joint state/CBJ capital facilities planning commission.	Planning Department Borough Assembly	Policy 9: STATE CAPITAL

Table VIII-1 (cont.)

Action	Role/Responsibility	Applicable Policies
6. Initiate industrial/port facilities study	Planning Department	Policy 13: NEW PORT FACILITIES Policy 39: REGIONAL TRANSPORTATION SYSTEM
7. Complete & adopt ordinance for use and disposition of CBJ selected lands including those suitable for new growth areas.	Planning Department Planning Commission Borough Assembly CAC	Policy 6: NEW GROWTH AREAS Policy 15: PLANNING AND DEVELOPMENT RESPONSIBILITIES Policy 16: CBJ AND STATE SELECTED LANDS
8. Review housing programs.	Housing Director	Policy 7: HOUSING AVAILABILITY AND AFFORDABILITY Policy 8: HOUSING CONDITION
9. Review citizen involvement program.	Planning Department Planning Commission	Policy 53: CITIZEN INVOLVEMENT
<u>Long Term (within 12 to 24 months)</u>		
1. Initiate subarea plans as necessary for downtown, Douglas Island, Auke Bay and Mendenhall Valley; management plans for AMSAs.	Planning Department	Section V, Subareas Policy 42: SUBAREA TRANSPORTATION NEEDS
2. Prepare for biennial updating.	Planning Department	Policy 52: AMENDMENT AND UPDATING

IX. GLOSSARY

IX. GLOSSARY

ACCESS: A way or means of approach to provide physical entrance to a property.

ANADROMOUS: Referring to fish, such as salmon, which hatch in fresh water, migrate to ocean waters to grow and mature, and return to fresh waters to spawn.

AREA MERITING SPECIAL ATTENTION (AMSA): According to the Alaska Coastal Management Act of 1977, "a delineated geographic area within the coastal area which is sensitive to change and which, because of plans or commitments or because a claim on the resources within the area delineated would preclude subsequent use, warrants special management attention, or which, because of its value to the general public should be identified for current or future planning, protection or acquisition."

AVALANCHE: Rapid fall or slide down a mountainside of a large mass of snow, rock, or other material.

BEACH: Gently sloping area of loose material (e.g. sand, gravel, and cobbles) which extends landward from the low water line to a point where there is a definite change in the material type of landform, or to the line of vegetation.

BUFFER ZONE: Strip of land, identified in the zoning ordinance, which protects one type of land use from another with which it is considered incompatible.

CAPITAL IMPROVEMENT: Any public acquisition of real property, major construction, or purchase of expensive equipment with a lifetime of more than one year.

CAPITAL IMPROVEMENTS PROGRAM: Proposed timetable or schedule of all future capital improvements to be carried out during a specific period; each item is listed in order of priority, accompanied by a cost estimate and anticipated financing.

CARRYING CAPACITY: Level of use which can be accommodated and continued without irreversible impairment to productivity of natural resources, the ecosystem, and/or the quality of air, land, and water.

COASTAL WATERS: All bodies of water in the coastal zone, including wetlands, intertidal areas, and coastal lakes.

COASTAL ZONE: As defined in the Alaska Coastal Management Act of 1977: "The coastal waters...and adjacent shorelands...strongly influenced by each other..." and includes intertidal areas, beaches, and wetlands. The coastal zone extends inland to the extent necessary to control the uses which have a direct and significant impact on coastal waters.

COASTAL MANAGEMENT: Planning process which guides the preservation, development, use, and restoration of coastal resources -- in Alaska, pursuant to the provisions of the State Coastal Management Act of 1977.

COMMERCIAL USE: Economic activity, including retail sales and services and private and public offices.

COMPREHENSIVE PLAN: A document containing a set of public policy actions regarding how the land, air, and water resources of an area are to be developed or preserved. Incorporates the plans and programs of various governmental units into a single document to be used as the basis for ongoing decisions and actions of these governmental agencies.

CONDITIONAL USE: See special use.

CONSERVE: Manage and utilize in a manner which avoids waste or destruction now and in the future.

CONSERVATION: Act of conserving, usually applied to the environment.

DENSITY: Average number of families, persons, or housing units per unit of land. Gross density refers to all the land area under consideration; net density is the area remaining after elimination of land for streets, parks, and other public uses.

DENSITY BONUS: In planned developments, approval of more housing units or commercial/industrial development than permitted by the underlying zone in return for the developer's agreement to use more innovative design, preserve open space, or provide more amenities than legally required.

DENSITY TRANSFER: Permission to use a density allowed in one area in another. The average overall density remains the same, while internal variations are allowed, such as in a cluster residential development. The concept also is being used to transfer development rights.

DEVELOP: To bring about growth or availability; construct or alter a structure; make a physical change in the use or appearance of land.

DEVELOPMENT: The act, process, or result of developing.

DEVELOPMENT RIGHTS: Broad range of land ownership interests. In legal terms, land is seen as encompassing a "bundle" of rights which can be separated and sold individually or as a whole.

EASEMENT: Right given by the owner of land to another party for a specific limited use; commonly used for utility easements either above or below ground, or access for pedestrian or automobile traffic.

ECOSYSTEM: Living and non-living components of the environment which interact or function together; includes plant and animal organisms, the physical environment, and the energy systems in which they exist. All components of an ecosystem are inter-related.

ESTUARY: Body of water semi-enclosed by land and connected with the open ocean, within which salt water usually is diluted by fresh water derived from the land. An estuary includes: (a) estuarine water; (b) tidelands; (c) tidal marshes; and (d) submerged lands. Estuaries extend upstream to the head of measurable saline influence.

FILL: Placement by man of sand, sediment, or other material, usually in submerged lands or wetlands, to create new uplands or raise the elevation of land.

FLOODPLAIN: Area adjoining a stream, tidal estuary, or coast that is subject to periodic regional flooding.

FLOOD, REGIONAL OR 100-YEAR: Standard statistical calculation used by engineers to determine the probability of severe flooding. Figure represents the largest flood which has a one percent chance of occurring in any one year as a result of higher than normal rainfall or streamflows, extremely high tides, high winds, rapid snowmelt, natural stream blockages, tsunamis, or combinations thereof.

FLOODWAY: Normal stream channel and adjoining area of the natural floodplain needed to convey the waters of a regional flood which causes less than a one foot increase in upstream flood elevations.

GROUNDWATER: Supply of fresh water under the surface in an aquifer (water-bearing rock) or soil where forms a natural reservoir for potable water.

HEADLANDS: Bluffs, promontories, or points of high shoreland jutting out into the ocean, generally sloping abruptly into the water.

HISTORICAL RESOURCES: Areas, sites, buildings, structures, and artifacts which have a relationship to events or conditions of the past.

HYDROLOGIC: Relating to the occurrence and properties of water. Hydrologic hazards include flooding, which is associated with the rise of water, as well as with its movement.

IMPACT ANALYSIS: The process of evaluating an effect on a community of a public or private activity. Federal and some state laws require environmental impact statements (EIS) before a project of some consequence can proceed. Impact analyses may include economic, social, and fiscal factors.

INFRASTRUCTURE: Facilities and services needed to sustain urban development; includes but not limited to water, sewer, and storm drainage systems, streets, communications, utilities, fire stations, parks, and schools.

INTENSITY: In planning, degree to which land is used; usually refers to levels of concentration or activities of use.

INTERTIDAL: Between the levels of mean lower low tide (MLLT) and mean higher high tide (MHHT). Lands located in such an area are referred to as tidelands.

LAND USE CONTROLS: The use of a community's police powers to guide land use and development; usually manifested in zoning, subdivision regulations, and official maps.

LANDSLIDE: Dislodging and rapid or gradual movement of a mass of earth and rock.

MANUFACTURED HOUSING: Also known as mobile homes, a unit designed for use as a residence constructed on a chassis to facilitate its movement to its permanent site, but not designed and built to the specifications of the Uniform Building Code for conventional structures.

NATURAL RESOURCES: Air, land, and water and the elements thereof which are valued for their current and potential usefulness.

NEW GROWTH AREA: Sites in rural areas potentially suitable for future urban/suburban residential development -- characterized by urban densities and a full complement of services and facilities, including water and sewer, and recreational, educational, and neighborhood commercial services. Non-residential uses such as port facilities or resource-related industrial development, e.g. a lumber mill or fish processing plant, may also be appropriate.

OCEAN FLOODING: Overflow onto lowlands by salt water, due to tidal action, storm surge, or tsunamis, i.e. seismic sea waves. Land forms subject to ocean flooding include beaches, marshes, coastal lowlands, and low-lying interdune areas.

OVERLAY ZONE: Zoning requirements imposed in addition to those of the underlying district. Development within an overlay zone must conform to both requirements or to the more restrictive.

PERMITTED USE: Use of land specifically authorized in a particular zone.

PERFORMANCE STANDARD: Minimum requirement or maximum allowable limit on the effects or characteristics of a use. For example, specifications regarding the amount of pollution allowed an industrial use without specific reference to how that level is to be achieved.

PLANNED DEVELOPMENT (PD): Form of development usually characterized by a unified site design for a number of housing units; may include clustered buildings, common open space, density increases, and a combination building types and land uses. Device permits the planning of a project and the calculation of densities over the entire development, rather than on an individual lot basis. Public officials may have more influence over the nature of this development than others.

PLANNING AREA: In the context of this comprehensive plan, the air, land, and water resources within the City and Borough of Juneau.

STUDY AREA: Smaller area which includes all land around existing urban and rural development generally considered developable due to ownership and/or physical suitability.

FOCUS AREA: Area which contains land most suitable for future urban development due to its proximity to existing uses, physical characteristics, and ownership.

PLANNING PROCESS: Procedure related to land use by which a community sets goals, collects information, reviews alternatives, and approves a plan and implementation process.

PREFABRICATED HOUSING: Factory-manufactured dwelling unit constructed to uniform building code specifications which is transported to a site and assembled on a permanent foundation. Does not include "manufactured housing", that is, mobile homes, which is subject to less stringent construction standards.

PUBLIC FACILITIES AND SERVICES: Projects, activities, and facilities which a governmental jurisdiction determines to be necessary for the public health, safety, and welfare. Includes but is not limited to water, sewage treatment, and storm drainage systems; solid waste disposal; schools, libraries, and recreational facilities; police and fire protection; and medical and social services.

PUBLIC OPEN SPACE: Land in public ownership or subject to publicly held easements or dedications; permanently retained and managed for recreational and scenic values.

RESIDENTIAL LAND: Used for housing or dwelling units. The following relate to the provisions of this comprehensive plan:

RURAL RESIDENTIAL: Dispersed, very low density development, not served with municipal sewer or water. Densities are intended to permit an average of one dwelling unit per five acres, but lot sizes of two acres may be appropriate, based on the ability of the area to accommodate on-site septic systems and wells.

LOW DENSITY RESIDENTIAL: Urban/suburban residential land for detached single-family units, duplexes, and zero lot line units at densities under seven units/acre; may include manufactured housing.

MEDIUM DENSITY RESIDENTIAL: Urban/suburban residential land for multi-family dwelling units at densities from 7 to 20 units per acre; may include subdivisions or parks of manufactured housing.

HIGH DENSITY RESIDENTIAL: Urban/suburban residential land for multi-family dwelling units at densities of more than 20 units per acre; may include retail/office uses on lower floors.

RIPARIAN: Of, pertaining to, or situated on the edge of the bank of a river or other body of water.

RURAL AREAS: All land outside an urban service area which contains natural resources in need of protection from development or areas unsuitable or not needed for more intense urban development. In the CBJ, the comprehensive plan provides that urban services are not to be planned or extended to these areas.

RURAL DEVELOPMENT: Natural resource management and conservation activities and extremely low density residential uses characterized by few public facilities and services; no public water and sewer; and limited police and fire protection.

SENSITIVE AREA: In the CBJ, areas with significant natural resource value or natural hazards which are designated for special management.

SENSITIVE HABITATS: Land or water area where sustaining the natural resource characteristics is important or essential to the production and maintenance of aquatic or wildlife.

SHORELINE: Boundary between a body of water and the land, measured on tidal waters at mean higher high water, and on non-tidal waterways at the ordinary high water mark. Includes intertidal areas and adjacent uplands.

SPECIAL USE; SPECIAL USE PERMIT: In regards to land, refers to uses which require special approval or conditions.

STREAM CORRIDOR: Except on heavily modified streams, a 200 foot corridor on either side of a stream in which development is controlled carefully or, if necessary, prohibited, to protect valuable habitat, scenic, and/or recreational values.

SUBDIVISION: Four or more parcels of land treated as a unit. Must be approved by appropriate local regulatory bodies.

SUBDIVISION REGULATION: Local ordinance which regulates the conversion of land into building lots for residential and other purposes; includes requirements for streets, utilities, site design, and procedures for dedicating land for open space or for public purposes; prescribes procedures for review.

SUBTIDAL: Below the level of mean lower low tide (MLLT).

TIDAL MARSH: Wetlands from lower high water (LHW) inland to the line of non-aquatic vegetation.

TIDAL WAVE (TSUNAMI): Very large ocean wave caused by an underwater earthquake or volcanic eruption.

TIDELAND: Generally unvegetated area which is alternately exposed and covered by the falling and rising of the tide.

TRANSPORTATION CORRIDOR: Land for public roads, streets, trails, and paths; classified as:

ARTERIAL: Street intended to carry large volumes of traffic at steady speeds with minimum interruptions to traffic flow.

COLLECTOR: Street which forms the boundary of a major block of land and is intended primarily for inter-neighborhood traffic; can function as a feeder road to commercial areas.

LOCAL: Street designed to provide vehicular access to abutting properties and discourage through traffic.

UPLAND: Drainages, aquifers (that is, underground water-bearing strata), whose development has a direct and significant impact on coastal waters.

URBAN/SUBURBAN DEVELOPMENT: In the CBJ, residential, commercial, industrial, and public uses which require and support a full complement of public services and facilities.

URBAN SERVICE AREA (USA): In the CBJ, site of existing urban development plus adjacent vacant land needed and appropriate for future urbanization; designation based on proximity to sewer, water, and other public facilities, ownership, and physical suitability.

WATER-DEPENDENT: Use or activity which can be carried out only on, in, or adjacent to water areas; use which requires access to the water for transportation, recreation, energy production, or as a source.

WATER-RELATED: Uses directly associated with water; if not located adjacent to water, would result in a loss of quality of the goods or services offered. Generally, residences, parking lots, spoil and dump sites, roads and highways, restaurants, businesses, and factories are not considered dependent on or related to water.

WETLANDS: Also known as fresh and saltwater marshes, land areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

ZONING: Division of a unit of government into districts; regulations governing the use, placement, spacing, and size of land and buildings.

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